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Private Sector Approaches to Effective Family Planning

Karen G. Foreit

Supporting the participation of the private sector in family planning is beneficial because it can (1) expand the total family planning market to help satisfy existing and future unmet needs for contraception and (2) shift current users from subsidized to more nearly self-supporting outlets — without compromising coverage, equity, or quality of care.

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This paper — a product of the Population Policy and Advisory Service, Population and Human Resources Department — is part of a larger effort in the department to review effective family planning program approaches. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington DC 20433. Please contact Otilia Nadora, room S6-065, extension 31091 (August 1992, 49 pages).

Even if per-user costs are controlled or reduced, the rising demand for family planning services will far outstrip governments' and donors' financial resources in most parts of the developing world. This "resource gap" lies at the heart of donor-sponsored initiatives to involve the private sector in family planning, but there are other equally good arguments for doing so. Governments and donors are often unaware of how much the private sector (especially the commercial sector) already participates — and could participate — in family planning.

Foreit discusses why the private sector should be involved in planning, how the private sector should be defined, what the experience has been so far with private sector involvement, and what might be expected in the future.

To support family planning in the private sector, she recommends that donors (1) expand the total family planning market to help satisfy existing and future unmet needs for contraception and (2) shift current users from subsidized to more nearly self-supporting outlets — without compromising coverage, equity, or quality of care.

The kinds of private sector activities that donors should support depend in part on which contraceptive methods are to be emphasized. Nonclinical systems, for example, are the most efficient way to distribute supply methods (for example, oral contraceptives and condoms), as long as medical backup is available for women who suffer side effects or who wish to switch to another method. These systems of distribution free up scarce resources in clinical facilities and the time of limited medical personnel for the resupply of contraceptives. However, if sterilization is to be emphasized, a close link with existing hospital infrastructure is necessary.

Nonclinical distribution favors commercial systems in urban and periurban settings and community-based distribution systems (either public or private) where commercial networks break down. Price subsidies might be considered in areas served by commercial systems, but where consumers cannot afford prevailing commercial prices.

Foreit discusses a wide range of experiences in providing both "supply" methods and clinical methods, such as sterilization (including tubal ligation). Roving sterilization camps have proved effective in Nepal and Thailand, for example, where demand for the procedure was high; they may have backfired in other areas, such as India. Mobile clinic vans have been tried in such countries as Colombia and Guatemala, but their effectiveness and cost-efficiency have not been carefully analyzed.

Among the topics Foreit covers: when to subsidize goods and services, when to introduce new subsidized nongovernmental organization outlets, which regulations may inhibit the expansion of private family planning efforts, how to foster demand for private sector family planning goods and services, and how to promote the private supply of such goods and services.

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Contents

1. Introduction and overview

Even if per-user costs are controlled or reduced, the rising demand for family planning services will far outstrip governments' and donors' financial resources in most parts of the developing world. This much-discussed "resource gap" lies at the heart of donor-sponsored private sector initiatives, although there are other equally good arguments for private sector involvement in family planning. Governments and donors are often unaware of both the current participation and future potential of the private sector in general, and the commercial sector in particular.

Throughout the developing world, the private sector plays a significant role in financing and providing health care, yet reliance on private family planning outlets is often less than the use of private sources for other kinds of health care. This discussion of private sector approaches to expanding family planning services will cover the following issues: (a) why the private sector should be involved in family planning; (b) how the private sector should be defined; (c) what has been the experience to date with private sector involvement; (d) what might be expected as a result of greater private sector participation; and finally (e) what measures donors should take to support private sector family planning.

2. Why the private sector should be involved in family planning

The reasons for private sector involvement in family planning are simple and straightforward. First, many consumers are willing and able to pay for family planning goods and services. Second, given a favorable business climate, in many countries the private sector can deliver more family planning goods and services than it currently provides. Third, private sector resources are needed if developing countries are to reach their contraceptive prevalence and method mix targets.

It has been argued that family planning is a public or merit good, and therefore that governments should take responsibility for providing leadership and resources to increase both demand and supply of services and supplies (Cochrane et al. 1990). This argument is based on the assumption that individual consumers are not willing or able to pay for the family planning services that they need. This assumption warrants closer examination.

It is probably not the case in much of Latin America that consumers are not willing to pay for family planning. Throughout the region, contraceptive prevalence began to rise long before governments became actively involved in promoting family planning, the private sector now covers large segments of the market, and—perhaps a more telling indicator of women's interest in controlling their own fertility—induced abortion, although illegal, is emerging as an important fertility determinant. In Asia, early government involvement in population policy and virtual control of the family planning market makes it difficult to determine consumer willingness to pay for contraception; and as long as contraceptive rates remain high and governments willing to pay the costs, private sector involvement will be low. Africa, and especially Sub-Saharan Africa, continues to show high fertility and low contraceptive prevalence, although significant advances have been made in the last decade in three countries. Large family size ideals held by many segments of the population lend support to the argument that demand is low; however, recent increases in abortion rates (Coeytaux 1988) indicate that women are in fact interested in regulating their fertility.

3. Definition of the private sector

While the motivations to adopt family planning are varied and include economic,

psychological, and health factors, among others, the mechanisms for doing so are similar to other health behaviors and thus subject to the constraints of the overall health sector. The user's first inclination may be to seek family planning from the same source as he/she obtains other health interventions, especially preventive health care. Specialized or vertical family planning programs have been created when the existing health sector was thought to be inadequate to the task of service delivery, when potential users were excluded from existing health outlets, or when prevailing governmental policies precluded the health sector's involvement in family planning.

In order to discuss the role of the private sector in family planning, it is important to first delineate attributes which can distinguish the public and private sectors. We will consider the following three dimensions: *outlet, administration,* and *financing.* Each can take one of two values—public or private. By outlet is meant ownership of the facility. By administration is meant whether program management is employed by the government or by a private entity. Financing is considered public if the main source of operating funds derives from the general treasury (tax revenues, loans, official donors, etc.), and private if it derives from users, employers, or private donors. Staffing of service delivery personnel will not be considered as a defining criterion. Staff may "belong" to either the outlet or to the administration.

These three dimensions yield eight possible configurations of facility ownership, administration, and financing, as shown in Figure 1 below.

FIGURE 1
Classification of the Health Sector

		ADMINISTRATION	
FACILITY	FINANCING	Public	Private
Public	Public	Pure public	Privatization
	Private	Forced payments Social security User charges	Partnership Rental
Private	Public	Nationalization	Subsidy Subvention Social marketing
	Private	Caretaker Conservator	Pure private

This paper will cover the configurations listed in the right-hand column of Figure 1, namely those administered by the private sector. It will begin with the purely private sector, that is, the use of privately owned and administered facilities or outlets, financed primarily by fees or third-party payments. This sector is influenced by government regulatory policies but generally does not depend on government financing or infrastructure. Then various combinations of public financing and use of public facilities will be discussed, including subsidies and social marketing, privatization schemes, and public-private partnerships.

3.1. Classification of private sector configurations

The private sector is often divided into two mutually exclusive categories, for-profit and nonprofit, usually on the basis of ownership of facilities and program administration. This

classification ignores modes of financing and may obscure important distinctions within the for-profit category. Just as we used the dimensions of facility, administration, and financing to define the domain of the private sector, we can use the dimensions of facility and financing to distinguish various private sector configurations.

FIGURE 2
Classification of the Private Health Sector

		FINANCING		
	FACILITY	User	Employer	Donor
FOR PROFIT	Retail outlets	Commercial	Insurance	Social marketing
	Private practice	Commercial	Insurance	Pilot projects
	Managed medical care	HMO	HMO	Pilot projects
	Industrial services		Employer-based	Pilot projects
NOT FOR PROFIT	Non-governmental organizations	NGO	Insurance	NGO

Historically, donor support to the private sector has been channeled through nongovernmental organizations (NGOs), while the for-profit sector has been supported primarily by user fees and to a lesser extent by third-party payments. It has been assumed, but seldom systematically documented, that NGOs serve users who cannot afford commercial prices or who live beyond the reach of the organized health sector. The extent and potential of user and third-party financing to support not only commercial outlets but also NGOs has until recently been overlooked in strategic planning for family planning programs. The first systematic efforts to use donor subsidies to stimulate commercial sector activity were contraceptive social marketing projects. More recently, donor-supported pilot projects have attempted to increase supply of family planning among private practitioners, managed medical plans, and industrial or employer-based health services.

4. Private sector coverage of the family planning market

In almost every country, private sector expenditures and financing account for a measurable portion of the health sector, although the contributions vary widely from country to country and bear no systematic relationship to total health expenditures. In Asia, Griffin (1990) found that private spending (excluding insurance) accounted for more than half of total spending in 7 of 13 countries reviewed. Similarly, a review of health expenditures and revenue sources in Sub-Saharan Africa (Vogel 1989) found appreciable private sector outlays, including NGOs and missions, modern private outlets, and traditional healers. Nongovernmental health expenditures clearly predominated in 10 of the 15 countries reviewed. Latin America probably has the most well-developed private health market, especially in the commercial subsector. For example, private expenditures account for roughly half of all health spending in both Brazil and Peru (Bruns and

McGreevey 1988; Zschock 1988).

Given an array of health outlets and financing mechanisms, the choice of outlet at a given point in time will depend on such factors as the availability of the service needed and its cost, including both absolute and relative price and user's opportunity costs such as time spent to reach the outlet and waiting time. Thus a woman may use a private medical group for prenatal and sick baby care, give birth at a social security hospital, vaccinate her child at a Ministry of Health post, and purchase simple medications at a pharmacy. Where she would go for a contraceptive method would depend on where family planning services were available, how much they cost, the convenience and quality of the service, etc.

The decision to seek medical attention and the outlet chosen depends on a number of factors, including the perceived gravity of the situation, relative costs, and the perceived quality of care. In a recent survey in Lima, Peru, 36.5 percent of those individuals with an accident or symptoms perceived to warrant medical attention did not, in fact, obtain treatment. In contrast, only 12.8 percent of pregnant women did not receive any prenatal care and 10.3 percent did not receive medical attention at delivery, while 38.2 percent did not receive postpartum care for themselves (INE 1988). Clearly, illness and postpartum care are seen as less needing of medical attention than prenatal care and childbirth. A similar pattern of behavior has been noted in other countries, such as Kenya (Mwabu 1986).

Moreover, the sources chosen for medical attention among those who do seek treatment also vary by condition, as can be seen from Table 1.

TABLE 1
Use of public and private commercial health outlets:
Metropolitan Lima, Peru

	CONDITION			
SECTOR	ILLNESS	PRENATAL	DELIVERY	POSTPARTUM
Public sector	32.5%	66.8%	73.5%	44.1%
Private commercial	27.4%	19.7%	16.1%	16.0%
No care	40.1%	13.5%	10.4%	39.9%

Source: 1984 National Health and Nutrition Survey

It is interesting to note that the use of public sector facilities is lowest for illness and highest for prenatal and delivery care. Perceived quality may be a factor; medical supplies, especially prescription drugs, tend to be in short supply at public facilities, which may encourage potential clients to go directly to pharmacies for treatment and bypass physicians altogether (almost one third of private commercial use for illness is provided by pharmacies). On the other hand, public facilities—especially social security hospitals—have a reputation for adequate maternity care, which may encourage clients to use them for prenatal and delivery care rather than resorting to paying private providers. Furthermore, maternity care in private hospitals is priced beyond the reach of most consumers, even those with private health insurance.

The extent to which family planning users rely on private services and supplies depends on a number of factors, including total contraceptive prevalence and method mix, participation of the private sector in the overall health market, and existence of special-purpose family planning programs, principally NGOs. The following table reports prevalence and source of modern contraceptive methods for countries in Latin America, Africa, and Asia. Traditional methods, including all forms of periodic abstinence, have not been included, as they often do not have an identifiable "source" and their lower use-effectiveness makes them less of a programmatic priority than modern methods. Thus, the figures in the table differ from others reported in earlier reviews (for example, Lewis and Kenney 1988). The "other" source category is not included, and the private sector has been divided into pharmacies and shops, commercial health providers (private physicians, hospitals, and clinics), and NGOs. Finer distinctions (e.g., pharmacy sales vs. social marketing) will be discussed later.

At first glance, it is difficult to discern any clear-cut trends in these findings. Within and across regions, countries differ widely in total prevalence, method mix, and sector coverage. Within regions, increasing use of pills and of female sterilization is correlated with total modern method prevalence The correlations between pill use and total prevalence are .775 in Latin America and the Caribbean; .922 in Africa; and .340 in Asia/North Africa. The correlations between use of female sterilization are total prevalence .745 in Latin America and the Caribbean; .707 in Africa; and .587 in Asia/North Africa. IUD use, however, is correlated with total modern method prevalence in Africa ($r = .659$), but not in Latin America ($r = .094$) or in Asia/North Africa ($r = .278$). Unlike other modern methods, IUDs are seldom encountered outside organized family planning programs.

The segmentation of the family planning market between the public and private sectors is influenced by government policies, method mix, and health infrastructure, as well as by total prevalence. Relationships among these variables are bidirectional and mutually reinforcing. Regional differences are pronounced. As can be seen in Table 3, the nongovernmental share of the family planning market is equal to or greater than its share of the health market in all four countries of Latin America for which data are available. In Sub-Saharan Africa, the nongovernment share of the family planning market is greater than its health market share in two countries and less than its health market share in three countries. Finally, the nongovernment share of the family planning market is much smaller than its share of the health market in all four countries in Asia and in one of the two countries in North Africa.

The importance of historical factors in determining these patterns should not be overlooked. In Latin America, the onset of the demographic transition predated organized efforts in population and family planning. In Chile, Brazil, and now Bolivia, the family planning movement grew out of concern with rising abortion rates and abortion complications. By the time governments and donors were prepared to support family planning, there was already a well-established demand and a private commercial market for contraceptive goods and services.

In Asia, governments took the lead in promoting the small-family ideal as a development goal and in providing contraceptive outlets. Heavy government involvement in family planning can still be seen. Africa is a relative latecomer to organized family planning. Donor-supported activities have focused on developing national population policies and program assistance to government and NGO family planning associations. Controls on access to foreign exchange and restrictions on imported goods (including contraceptives) constrains the private sector in Africa.

TABLE 2
Source of contraception among users of modern methods

COUNTRY	METHOD	PREVALENCE	OUTLETS: PUBLIC SECTOR	PHARMACIES	PRIVATE PRACT	NGOs
Latin America and the Caribbean						
Bolivia	Modern methods	12	34	9	54	1
1989	Pills	[illegible]	8	38	46	2
	IUD	[illegible]	20		77	2
	Female steril	4	62		38	0
Brazil	odern methods	56	28	46	23	1
1986	Pills	25	4	93	1	1
	IUD	0				
	Female steril	27	55		42	1
Colombia	Modern methods	55	25	29	11	32
1990	Pills	14	18	74	1	3
	IUD	12	44		21	32
	Female steril	21	23		15	60
Dominican	Modern methods	47	42	4	44	1
Republic	Pills	9	41	17	10	3
1986	IUD	3	71		22	2
	Female steril	33	40		56	0
Ecuador	Modern methods	36	42	6	35	17
1987	Pills	8	33	20	32	15
	IUD	10	28		34	38
	Female steril	15	58		35	7
El Salvador	Modern methods	44	78	6	4	13
1985	Pills	7	48	28	4	19
	IUD	3	86		6	7
	Female steril	32	86		2	12
Guatemala	Modern methods	19	32	7	18	40
1987	Pills	4	29	12	12	44
	IUD	2	11		41	48
	Female steril	10	42		18	38
Honduras[1]	Modern methods	33	19	15	10	52
1987	Pills	13	18	34	2	42
	IUD	4	50		21	29
	Female steril	13	11		15	71
Mexico	Modern methods	45	63	22	14	0
1987	Pills	10	32	63	3	1
	IUD	10	77		20	0
	Female steril	19	79		20	0
Peru	Modern methods	23	54	2	31	2
1986	Pills	6	49	32	4	2
	IUD	7	58		32	4
	Female steril	6	68		29	0

Table 2, cont.

COUNTRY	METHOD	PREVA-LENCE	OUTLETS			
			PUBLIC SECTOR	PHAR-MACIES	PRIVATE PRACT	NGOs
Trinidad & Tobago 1987	**Modern methods**	**44**	**38**	**37**	**9**	**15**
	Pills	14	31	53	8	7
	IUD	4	44		23	32
	Female steril	8	67		19	12
Sub-Saharan Africa						
Botswana 1988	**Modern methods**	**32**	**94**	**1**	**4**	**0**
	Pills	15	96	1	2	0
	IUD	5	93		6	0
	Female steril	4	91		8	0
Burundi 1987	**Modern methods**	**1**				
	Pills	0				
	IUD	0				
	Female steril	0				
Ghana 1988	**Modern methods**	**5**	**35**	**23**	**2**	**19**
	Pills	2	27	30	3	27
	IUD	0				
	Female steril	1	81		3	3
Kenya 1989	**Modern methods**	**18**	**70**	**1**	**15**	**12**
	Pills	5	68	1	11	18
	IUD	4	75		12	12
	Female steril	5	77		19	4
Liberia 1986	**Modern methods**	**6**	**31**	**13**	**5**	**49**
	Pills	3	21	18	4	56
	IUD	1				
	Female steril	1	62		8	27
Mali 1987	**Modern methods**	**1**				
	Pills	1				
	IUD	0				
	Female steril	0				
Ondo State, Nigeria 1986	**Modern methods**	**4**	**48**	**28**	**17**	**2**
	Pills	1	42	29	20	1
	IUD	1	95		5	0
	Female steril	0				
Senegal 1986	**Modern methods**	**6**	**47**	**5**	**38**	**0**
	Pills	4	43	3	43	0
	IUD	2				
	Female steril	0				
Togo 1988	**Modern methods**	**3**	**42**	**32**	**4**	**9**
	Pills	0				
	IUD	1				
	Female steril	1				

Table 2, cont.

COUNTRY	METHOD	PREVALENCE	OUTLETS: PUBLIC SECTOR	OUTLETS: PHARMACIES	OUTLETS: PRIVATE PRACT	OUTLETS: NGOs
Uganda	**Modern methods**	**2**	**49**	**3**	**10**	**36**
1988/89	Pills	1	31	6	13	47
	IUD	0				
	Female steril	1	90		10	0
Zimbabwe	**Modern methods**	**36**	**53**	**2**	**2**	**39**
1988	Pills	31	52	1	1	41
	IUD	1	28		31	28
	Female steril	2	79		11	7
Asia/North Africa						
Bangladesh[2]	**Modern methods**	**24**	**71**	**18**	**3**	**5**
1989	Pills	9	43	36	5	11
	IUD	2	89		2	4
	Female steril	9	97		2	0
Egypt	**Modern methods**	**35**	**24**	**53**	**20**	**0**
1988	Pills	15	10	87	0	0
	IUD	16	43		54	1
	Female steril	2	73		25	0
Indonesia	**Modern methods**	**44**	**80**	**2**	**10**	**0**
1987	Pills	16	78	2	3	0
	IUD	13	89		10	0
	Female steril	3	94		6	0
Morocco	**Modern methods**	**21**	**61**	**9**	**11**	**1**
1987	Pills	17	60	11	7	1
	IUD	2	73		23	3
	Female steril	2	70		27	0
Sri Lanka	**Modern methods**	**40**	**85**	**3**	**5**	**2**
1987	Pills	4	66	14	11	1
	IUD	2	95		4	1
	Female steril	25	95		2	1
Thailand	**Modern methods**	**66**	**82**	**7**	**7**	**1**
1987	Pills	20	70	23	5	0
	IUD	7	95		3	0
	Female steril	22	91		8	0
Tunisia	**Modern methods**	**40**	**77**	**14**	**9**	**0**
1988	Pills	9	41	49	8	0
	IUD	17	89		11	0
	Female steril	12	98		2	0

Source: Demographic and Health Surveys, unless noted otherwise.
[1]Epidemiology and Family Health Survey.
[2]Bangladesh Contraceptive Prevalence Survey.

TABLE 3
Private sector coverage of family planning
vs. health care expenditures

	FAMILY PLANNING		HEALTH EXPENSES	
	PREVALENCE	NON-GOVT SHARE	PER CAPITA	NON-GOVT SHARE
Latin America/Caribbean				
Brazil	12	66		50
Colombia	55	75	69.60	33
Ecuador	36	58	46.11	39
Peru	23	46	62.12	47
Africa				
Botswana	32	6	36.65	44
Kenya	18	30		50
Senegal	6	53	17.73	38
Uganda	2	51	9.73	80
Zimbabwe	36	47	29.58	40
Asia/North Africa				
Bangladesh	24	29		59
Egypt	35	76	16.53	58
Indonesia	44	20	15.03	62
Morocco	21	39	23.53	55
Sri Lanka	40	15	10.25	40
Thailand	66	18	19.56	70

Sources: DHS; Akin et al. (1987); Vogel (1988); Griffin (1990); Bruns and McGreevey, (1988).

Cochrane et al. (1990) have suggested that private sector coverage is inversely proportional to governmental willingness to involve itself in family planning, and that the balance between commercial and NGO involvement is a function of level of demand.

> In many countries in the early stages of demographic transition when family planning is controversial and demand is low, the nonprofit NGOs usually assume a very large part of the responsibility. Where demand is high, the for-profit private sector will also be active. For the most part, Latin America is an example where demand is high, the governments regard family planning as too controversial to become actively involved, and the private sector and NGOs provide the majority of family planning services. . . . Africa has until recent years been characterized by low demand and low government commitment and poor primary health care and thus, family planning has been provided primarily through NGOs. . . . Asia has shown a very strong government commitment to reducing population growth to stimulate economic growth and the government sector has played a major role in family planning (pp. 4-5).

Cross et al. (1991) examined the relationship between economic and political factors and for-profit contraceptive market share among the 27 countries for which DHS data are available. Urbanization, secondary school enrollment, and per capita GDP were all positively correlated with private sector use, and use of private sector outlets was generally higher in urban areas than in rural areas. These results parallel those reported earlier by Kenney and Lewis (1989). Government family planning program effort showed a curvilinear relationship with private sector use with peak private sector market share at approximately 52.5 on the Lapham-Mauldin scale of government effort (maximum possible score 120); countries below this point showed a significant positive correlation between government effort and private sector coverage ($r = .62$, $p < .01$), while countries above this point showed a significant negative correlation ($r = -.71$, $p < .05$). Furthermore, of 13 countries with time trend data, six showed loss of private sector market share of greater than 10 percent between the two surveys, which only one country showed appreciable private sector gain. Cross et al. conclude that while a favorable political climate can stimulate the private sector, strong government programs have the effect of crowding out the private sector.

The contraceptive market is partially defined by the different family planning methods themselves. Prescription norms notwithstanding, *supply methods* (pills, condoms, and spermicides) can be sold wherever pharmaceuticals are found, including pharmacies, dispensaries, and small shops and vendors' stands. All else being equal, the private commercial sector should show a comparative advantage in distributing supply methods. *Temporary clinical methods* (IUD, implant) require some sort of health facility, more highly trained personnel, minimum standards of hygiene, and some degree of privacy for the provider and client. They are also likely to be subjected to self-imposed controls from within the medical community (such as requiring that only physicians can insert IUDs, despite empirical evidence that well-trained nurses and midwives can perform the procedure as well as or better than physicians). *Female sterilization* depends both on the existing clinical infrastructure and on the conditions under which sterilization is performed. Even when performed on an outpatient basis, laparoscopy or mini-laparotomy requires at least a surgical area and minimum conditions of hygiene. Thus, if all the surgical facilities in a given country are located in public hospitals, women must of necessity use that sector if they wish to be sterilized; whereas the existence of a private clinical infrastructure permits some degree of possible choice between public and private sectors.

Other factors relating to specific methods can affect the shape of the market. For example, where access to sterilization is restricted and women cannot obtain interval sterilizations (interval procedures are those which are performed at any time other than following a pregnancy termination), those who want to be sterilized will resort to other avenues, such as paying a physician to perform the procedure during an often otherwise unnecessary cesarean section delivery. Provision of sterilizations will follow usage patterns of hospital delivery; the greater the proportion of hospital births attended in the public sector, the smaller the private sector coverage of female sterilization.

Easing restrictions on sterilization may increase private sector participation, especially to the extent that public facilities are oversubscribed. Since an interval procedure is elective, women may have difficulty scheduling an operation in a public facility if the surgical facilities are already crowded with deliveries and life-threatening conditions. Private organizations may take advantage of the demand for interval sterilizations by constructing or equipping outpatient surgical facilities; conversely, organizations which have access to surgical facilities may aggressively promote outpatient tubal ligations and thus increase demand.

The effects of government norms and ownership of infrastructure can be seen in coverage of female sterilization in Latin America. In Brazil and the Andean region, access to sterilization has been limited to high reproductive risk women, forcing those who do not meet the requirements to resort to "informal" postpartum sterilization via cesarean section. In other countries such as Colombia, Mexico, and Guatemala, sterilization norms are less restrictive, which in principle

should allow women greater access to interval procedures. Data on timing of female sterilization—following a cesarean section delivery, following a vaginal delivery, or interval—are available for nine countries in Latin America. Across the region, there is no consistent relationship between total prevalence of female sterilization and timing of the procedure, suggesting that norms per se are not a significant determinant of adoption of this method. The proportional use of cesarean section procedures is negatively correlated with proportional use of interval procedures ($r = .69$, $p < .05$), suggesting that norms do affect the timing of the procedure. Finally, private sector coverage of sterilization shows a positive relationship with absolute prevalence of interval sterilizations ($r = .81$, $p < .01$), supporting the hypothesis that less restrictive sterilization norms encourage or permit greater private sector participation.

Ownership of clinical facilities is another potential factor in private sector coverage of sterilization, especially under restrictive norms which encourage inpatient, post-cesarean section procedures. Within Latin America, Brazil and Peru show the highest relative rates of sterilization by cesarean section (65 percent and 51 percent, respectively, of all female sterilizations). Hospitals in Brazil are divided almost equally between the public and commercial sectors; as a result, 42 percent of the users of female sterilization were operated in commercial sector hospitals. In Peru, the private sector controls 25 percent of the hospital facilities, and the commercial sector accounts for only 29 percent of tubal ligations.

Because of its relative ease of distribution, pills and other supply methods should be the most sensitive to market pressures of supply and demand. In Latin America, oral contraceptives are well accepted, and there is a strong positive correlation between absolute pill prevalence and private sector coverage: those countries with the highest pill prevalence also show the highest participation of pharmacies in the pill market ($r = .791$). In contrast, pill prevalence in Sub-Saharan Africa is much lower: with the exception of Botswana and Zimbabwe, no country shows more than 5 percent pill prevalence. Pill prevalence in Sub-Saharan Africa is positively correlated with government share of the pill market ($r = .450$) and negatively correlated with pharmacy coverage ($r = -.517$). It could be argued that the pill market in this region owes its existence to government efforts to stimulate demand. Whether government influence can continue to stimulate demand and provide contraceptives to growing numbers of users or will act as a cap by not permitting private market activity remains to be seen. Asia/North Africa shows no correlation between pill prevalence and either government or pharmacy share of the pill market.

Within the private sector, the relative contributions of private practitioners, pharmacies, and NGOs are also varied and influenced by method mix. This can be illustrated by comparing Brazil and Colombia, two "advanced" developing countries characterized by high prevalence and low government involvement in family planning. The balance between the commercial sector and NGOs is shifted towards NGOs in Colombia and towards the commercial sector in Brazil. In Colombia one NGO, Profamilia, accounts for 32 percent of all modern method users and the commercial sector for 40 percent. In contrast, in Brazil, the entire NGO sector accounts for 1 percent of modern method users, whereas the commercial sector accounts for 69 percent.

Part of this difference may be due to differences in method mix: pill and IUD prevalence are 14 and 12 percent, respectively, in Colombia, compared with 25 and less than 1 percent in Brazil. The commercial sector is the major supplier of pills in both countries: 75 percent in Colombia and 94 percent in Brazil. NGOs accounts for 32 percent of IUD use in Colombia, while IUD use in Brazil is an insignificant part of the contraceptive market. Time series data from Mexico also show the impact of method mix on market segmentation. Private sector coverage of all modern method users decreased from 47 to 38 percent between 1982 and 1987, which coincided with a relative decline in the use of pills (available from pharmacies) from 30 to 18 percent of modern method users, while the use of IUDs and female sterilization (available primarily from public

facilities) grew from 42 to 56 percent.

In summary, the private sector has demonstrated its potential to provide family planning goods and services, but the extent of its involvement depends not only on its comparative advantages, but also on government activities and regulations. The use of male and female sterilization, IUDs, and condoms shows strong regional variation, due at least in part to government interventions (see Janowitz et al. 1990). The commercial sector shows a comparative advantage in settings where it already controls a significant portion of the total health market, in both relative and absolute terms, and where the available or preferred contraceptive methods can be provided through its existing infrastructure (e.g., pharmacies in Brazil that can sell pills). NGOs may enjoy a comparative advantage where they already control a significant portion of the health sector, or where the health sector is nonexistent or unwilling to promote specific contraceptive methods (e.g., IUDs and sterilization in Colombia).

The following sections will deal with specific components of the private sector, including commercial delivery, NGOs, and various configurations of private administration with public financing and public facilities.

4.1. Commercial subsector

The commercial sector consists of for-profit family planning outlets whose principal sources of financing stem from fees or private prepayment plans such as health insurance. They include pharmacies and shops, as well as private physicians and midwives, either in solo practice or at clinics or hospitals. Lewis and Kenney (1988) describe the commercial sector as follows:

> The for-profit sector functions entirely outside the public sector, relies exclusively on market forces, and returns on investment. For-profit firms invest in producing or distributing contraceptives and family planning services in response to consumer demand, and are dependent upon adequate financial returns for survival. Investment in family planning indicates that the investment is potentially profitable. . . . Consumer demand, pricing, political and economic stability, and regular and reliable access to supply inputs are key elements in determining profitability; without these, returns may be inadequate to attract or keep private investors (p.2).

Understanding what constitutes profitability is key to understanding the incentives for the commercial sector to invest in family planning, and this in turn depends on the financing mechanism for the particular entity in question. Outlets which depend on fees realize profits to the extent they generate contraceptive sales and services. Prepayment schemes realize profits not from services generated but from services averted; family planning becomes profitable from costs saved, to the extent that it averts the use of other more expensive services, such as maternity or pediatric care or the treatment of abortion complications. Adding family planning may also permit the plan to raise its premiums or confer a marketing advantage over other plans which do not include the benefit. In the latter case, family planning coverage is profitable as a loss leader if it succeeds in generating new business for the plan.

The commercial sector is involved in all aspects of family planning delivery, from production of contraceptive commodities to their distribution to retail outlets, as well as the provision of family planning services by private practitioners. As demonstrated earlier, the relative importance of the sector varies by contraceptive method and geographic region.

4.1.1. Production of contraceptive commodities

World-wide, for-profit firms are already the major producers of contraceptive commodities for both the public and private sectors. Only in socialist countries is the government the sole producer of contraceptives. The private sector is sole producer in 31 of the 37 countries which manufacture oral contraceptives (including the U.S. and Europe): the government is sole producer in three (China, Cuba, and Poland); both government and multinational producers are found in two countries; and one country maintains a public-private joint venture. Similarly, the private sector controls production in 15 of the 20 countries which manufacture IUDs: the government is sole producer in five (China, Czechoslovakia, Poland, the former Soviet Union, and Vietnam) and involved in a joint venture in one. Finally, the private sector is the only producer in 18 of the 25 countries which manufacture condoms: the government is sole producer in six (Bulgaria, China, Czechoslovakia, Poland, the former Soviet Union, and Vietnam) and involved in a joint venture in one (PATH 1991).

Contraceptive manufacturing is currently concentrated in the developed countries, due in part to the importance of donated commodities. A.I.D. provides approximately 75 percent of all commodities donated to the developing world; because of procurement regulations, most of these are manufactured in the U.S. Nevertheless, five of the 16 countries that represent 90 percent of current contraceptive consumption in the developing world are judged to be completely or nearly autonomous in terms of contraceptive production capacity relative to their current commodity requirements for condoms, IUDs, oral contraceptives, and injectables, and several have excess capacity (PATH 1991). However, the calculation of surplus capacity should be evaluated cautiously, especially in the case of condoms. For example, Brazil is classified as a surplus country. However, prevalence estimates do not include condoms used to prevent transmission of sexually transmitted diseases (STDs) and HIV. Despite a large local manufacturing capacity, A.I.D. shipped 42 million condoms to Brazil between 1988-1990 to meet shortfalls generated by AIDS prevention programs.

Multinational corporations, through their local subsidiaries, control much of the contraceptive production in the developing world, with indigenous companies playing a smaller role. Lewis and Kenney (1988) list the major multinational manufacturers. For hormonal contraceptives, they include Organon (Holland), Schering (Germany), and Syntex, Wyeth, and Ortho (U.S.). IUD manufacturers include Organon, Schering, and Finishing Enterprises (U.S.). Condoms are produced by Ansell (Australia), London Rubber Industries (U.K.), and Sagami Rubber Industry (Japan).

Incentives for local manufacturing by multinationals include the possibility of sales to the public sector, which in some countries exceed private sector outlets. In addition, developing country governments may encourage local production to conserve foreign exchange, by adopting either positive (such as tax breaks) or negative incentives (import restrictions) to do so. Finally, the cost of shipping imported goods may exceed the start-up costs associated with local manufacture (PATH 1990, 1991).

Constraints to local manufacture derive from the nature of the manufacturing process itself as well as macroeconomic considerations of the country context. Production of modern contraceptives is not a cottage industry. Orals, IUDs, and condoms all require sophisticated machinery and stringent levels of quality control. Once the equipment is in place, on-going technical assistance to local manufacturers is needed to supervise the production process over an extended period of time. In addition, the manufacture of orals and IUDs poses potential occupational hazards for workers (exposure to steroid-contaminated dust in the case of orals, and to ethylene oxide gas for sterilizing IUDs), which adds to the need for long-term worker training and supervision.

Even if manufacturing facilities can be installed, most developing countries will need to

import the raw materials need for production (steroids for orals, high-quality latex for condoms, and high-quality plastic and copper wire for IUDs). If these raw materials are subject to tariffs, production costs will rise, and any snags in the import process (for example, changes in regulations concerning foreign exchange) will reverberate throughout the manufacturing process. In this sense, contraceptive manufacturing is subject to the same constraints as any other high-technology industry. Other deterrents to foreign investment include government restrictions on repatriation of earnings, price controls, uncontrolled inflation, and risk of the government creating a subsidized competing factor or purchasing from other sources. Certain contraceptives, like other ethical products, may require product approval from the local country's Food and Drug Administration equivalent, an often lengthy and expensive proposition.

4.1.2. Distribution and marketing of contraceptive goods and services

The use of contraception is a discretionary behavior under the user's direct control; successful marketing of contraceptive goods and services requires both creation and maintenance of demand and supply. Historically, the commercial sector has done little in the way of creating demand for fertility regulation in general or specific contraceptive methods or brands in particular. An exception to this rule are contraceptive social marketing (CSM) projects which use donor- or government-subsidized marketing techniques to raise awareness of family planning and specific brands and outlets. CSM will be discussed separately below.

Family planning advertising may take one of two approaches. The first, "generic," approach seeks to sensitize the audience to the issue of fertility regulation or to provide information on a wide range of contraceptive methods. The messages in this form of advertising tend to be general, often promoting such concepts as "responsible parenthood." The second, "selective" approach resembles commercial, consumer products advertising campaigns, in which specific brands of contraceptives and outlets are promoted.

Generic advertising may increase contraceptive prevalence where use is low. Bertrand et al. (1982) reported higher correlations between exposure to family planning messages and family planning use in areas with relatively lower contraceptive prevalence, than in areas of relatively higher prevalence. However, it is difficult to interest commercial suppliers of contraceptive methods to invest in generic campaigns because returns will accrue to their competitors as well. In addition, many of the suppliers who are able to afford advertising are located in areas where contraceptive prevalence is already advanced, and will therefore stand to gain less from generic advertising.

Where contraceptive prevalence is already high, generic messages may be unnecessary. Some researchers have argued that advertising in such areas should be more selective and focus on promoting underutilized methods or underutilized sources (see Foreit et al. 1989). Outside of CSM activities, selective advertising directly to consumers has not been widely used. Most countries restrict brand-name advertising of all ethical products, including contraceptives. Over-the-counter methods, such as condoms, may be subject to self-imposed advertising censorship from manufacturers and distributors fearing social backlash, and point of purchase promotion may be restricted for similar reasons. (It is interesting that in the U.S., mass advertising and promotion of condoms did not begin until well into the AIDS epidemic). Few suppliers have invested in systematic market research to study consumer preferences and potential impact of advertising.

Once demand has been created, successful marketing of contraceptives requires a reliable network of outlets. Supply methods depend primarily on retail outlets—pharmacies, shops, etc. While physicians and midwives may play a role in the initial prescription of pills and barrier methods, most users will go to retail outlets for resupply. In the 1987 Mexico DHS, current family planning users were asked where they had gone when they began using their method, and where they

had gone for their most recent supply. Fifteen percent of pill users reported receiving their first cycle from a private physician, but only 2 percent depended on private physicians for their most recent supply (some of these may have been women who had not yet sought resupply). Furthermore, many users of oral contraceptives and barrier methods never receive a medical prescription. Again from Mexico, 46 percent of pill users purchased their first cycle at a pharmacy; the number who relied on pharmacies for their most recent supply increased to 63 percent, capturing most of the users who had begun with physicians.

Pharmaceutical firms rely on detailers to market to physicians and pharmacists. Detailer promotion includes not only the detailer's direct expenses but the production of promotional material and often free samples of the company's product line. The cost of detailing and sampling was reported to account for 50 percent of the retail price of oral contraceptives in Colombia, Iran, and the Philippines in 1971 (Arthur D. Little 1972, cited in Lewis and Kenney 1988). One pharmaceutical company, Schering Ag, has a corporate policy of not promoting brands for more than three years following product launch, on the grounds that after this time the product will either have achieved market viability or is not worth the effort.

Retail sales are influenced by desire to control fertility, reliability of supply, purchasing power of potential users, and competing prices from the subsidized government and/or NGO sector. The primary financing source for retail sales is the consumer, as most insurance and medical plans do not include medications for outpatients. At this level of financing, issues of price and price elasticity of demand are critical.

In an analysis of commercial sales statistics for oral contraceptives in the Dominican Republic in 1982–87, Stover (1987) reported a price elasticity of -1.5 percent. For every 1 percent of price difference between competing brands, the lower-priced brand increased unit sales by 1.5 percent. The impact of price changes is probably even more pronounced at the extremes of the distribution, when, for example, free commodities are introduced or prices are abruptly increased.

Donated commodities have had destabilizing effects on commercial markets. The introduction of free government services in Kenya and Nigeria was associated with drastic reductions in the private market; one firm in Nigeria closed down its subsidiary altogether (Lewis and Kenney 1988). Four years after the initiation of a community-based distribution (CBD) program in Piauí State, Brazil, pill prevalence had not increased; the net effect was to replace the commercial sector share with free, donated supplies. Finally, a recently completed retail audit in Guatemala found that donated commodities "leaked" from the Ministry of Health and from neighboring countries accounted for 14 percent of the commercial market in condoms (The Futures Group 1991).

Price elasticity studies seldom employ abrupt price increases for fear of disrupting the market. As part of its economic austerity program, the government of Peru decontrolled prices in August 1990. Overnight, the pharmacy price of the most popular oral contraceptive, Microgynon, tripled, from US$.50 to US$1.50. Three months earlier, Microgynon had been introduced into two CBD programs on a trial basis at prevailing pharmacy prices. Prior to the price increase, distributors were selling almost as much Microgynon to new clients as the donated CBD brand, Lo-Femenol, which sold for US$.10. After the price increase, Microgynon sales dropped nearly to zero and had not recovered 6 months later.

How clinical contraceptive methods are marketed depends on the availability of infrastructure, including trained providers and clinical facilities. Physicians tend to be the primary commercial providers of IUDs and sterilization; although many countries permit trained midwives to insert IUDs, few of them are in private practice.

There are few hard data on the prices charged by private physicians for clinical contraceptive methods, but evidence suggests that the prices may be quite high and unaffordable to many users. In some countries, IUDs are not widely available to the general public. Private physicians obtain IUDs as contraband or through "leakage" from government or subsidized sources, and command high prices to provide them to their patients. Similarly, health norms or medical codes may restrict or prohibit sterilization on demand. Women in Brazil, Ecuador, Peru, and Bolivia have learned that they can pay an obstetrician on the side for an "informal sterilization," which often takes the form of a cesarean section delivery accompanied by an unreported tubal ligation.

In recent years, donors have attempted to increase commercial sector delivery of contraceptive goods and services to users through a combination of reducing barriers to commercial production and delivery and increasing incentives through contraceptive social marketing and efforts aimed at employer-subsidized health and welfare benefits.

4.1.3. Employer-subsidized health plans

Industrialization and incorporation of larger numbers of workers into the formal labor force coupled with growing dissatisfaction on the parts of both labor and management with publicly managed health care has led to the growth of employer-subsidized health plans in various parts of the developing world. These schemes may take the form of indemnity-type health insurance, which provides cost reimbursement to hospitals and fee-for-service to physicians, or managed prepaid care provided by an organized medical group. Both are based on the concepts of group financing and pooled risk; in the former case, the insurance carrier assumes the financial risk and services are provided by third parties, whereas in the latter case the same entity both assumes the financial risk and provides the services. In some cases, the company maintains its own facility for employees and dependents.

Managed prepaid care requires a large enough catchment group of employers and employees to whom the concept can be marketed and an adequate pool of unemployed or underemployed health care providers interested in belonging to this kind of group practice (Group Health Association of America 1985). As a result, these schemes are basically confined to urban, industrialized areas. Other organized community structures such as production cooperatives may also be able to afford prepaid plans.

Within the developing world, private prepaid medical coverage is pretty much limited to Latin America. Health insurance is also found in Asia, but the largest plans (China, Korea, the Philippines) are financed by obligatory payroll taxes and thus should not be considered part of the private sector. Sri Lanka, Indonesia, and Thailand have small private insurance industries (Griffin 1990). Prepaid care is virtually unavailable in Africa, save for plans in South Africa and a growing insurance industry in Zimbabwe.

An in-depth assessment of managed prepaid medical plans in Latin America and the Caribbean was conducted in 1985 (Group Health Association of America 1985). Case studies were included for most of the countries in South America, but a uniform reporting scheme was not developed. In Bolivia, 11 health cooperatives, three insurance companies, and two HMOs were identified, covering approximately 1 percent of the population. In Brazil, 156 HMOs were identified covering 8 percent of the population, as well as 76 physician cooperatives and several health insurance companies. In Colombia, three commercial HMOs were found, covering some 12,500 beneficiaries; a small insurance industry exists, but no figures were given. Ecuador had an unspecified number of cooperatives, six health insurance companies, and one prepaid health plan (the last with 20,000 beneficiaries). In Paraguay, 25 HMOs serving the upper and middle classes were found. Finally, in Peru, 13 percent of the population was covered by cooperatives and another 6

percent by health insurance and prepaid plans.

Formal labor force participation and higher income are typically associated with increased contraceptive use and lower fertility. Recent recruits to the formal labor force, however, face a double bind. While their new status motivates them to control their fertility, many do not have the purchasing power to seek medical care outside their prepaid plan. Thus, if the plan does not include family planning, they will either do without or seek out public or subsidized NGO sources. In a survey of all major Peruvian health insurance companies in 1990, none reported covering either prenatal care or family planning, although hospital delivery was included (Foreit 1990); likewise 17 of 28 Brazilian HMOs responding to a 1986 survey reported that they did not offer family planning, but the industry average was even lower (Foreit 1987). With the exception of pioneering efforts in Asia, most notably India, few own-services programs include family planning as a preventive health benefit.

Company-sponsored family planning programs in India date back to the 1930s and include TVS-Lucas (1938), Tata Iron and Steel Company (1950), Alembic Chemicals (1956), and Hindustan Spinning and Weaving Mills, Gujarat Refinery, Godrej & Boyce, and the Tea Plantations (early 1960s). By 1972, 132 plantations and 146 industries were providing family planning (Rinehart et al. 1987). Family planning is offered in the Philippines by the Hawaiian-Philippine Company (1970) and Philacor (1975). By law, all companies in the Philippines that are legally required to provide clinics or infirmaries are required to offer family planning, but not all comply. These programs not only provide family planning services, but also attempt to stimulate demand for fertility control through a series of incentives for adopting family planning (cash payments for sterilization, etc.) and disincentives for large families (limiting maternity leave and benefits for higher-order children). Other employer-sponsored motivational and service delivery programs have been implemented at Jamaican sugar and bauxite companies, coffee growers in Colombia, the P. T. Imbritex textile factory in East Java, Indonesia, and Pertamina Oil Enterprises (Lewis and Kenney 1988).

It appears that these programs have attracted family planning acceptors. A survey of married female workers and wives of male workers at Tata Iron and Steel Company found 84 percent contraceptive prevalence among women resident in Jamshedpur, where the company is located (Wickstrom et al. 1988), half of which was due to sterilization. Although source of method was not asked, it was assumed that most users were served by the Family Welfare clinics maintained by the company; in addition, the company supplemented the government cash incentive for accepting sterilization.

Labor unions have also been involved in promoting family planning as an employee benefit, in India, Turkey, and Sri Lanka. The International Labor Office, a U.N. organization, subsidizes 70 projects in 35 countries (Rinehart et al. 1983), often in collaboration with UNFPA or international NGOs. Recently, A.I.D. has begun to underwrite organized efforts to enlist employer support for family planning through two world-wide assistance projects, Technical Information on Population for the Private Sector (TIPPS, 1985–91) and the Enterprise Program (1985–91). The A.I.D.-funded OPTIONS projects have addressed policy constraints to greater private sector participation in family planning, and a follow-on to the Enterprise Program (PROFIT) is scheduled to begin in 1991.

A central feature of the A.I.D. employer-based initiatives is the financial argument that the costs to the employer of providing family planning to employees and dependents can be more than offset by savings arising from averting maternity-related service costs. Potential costs and benefits are projected by assessing current levels of fertility and contraceptive prevalence, demand for employer-subsidized family planning, and the costs of providing family planning. Pregnancies,

births, and abortions averted as a result of higher contraceptive prevalence are then projected, along with their associated cost savings to the employer or health plan. The principle criteria used to select study sites were that the company already provided maternity-related benefits and could therefore achieve cost savings from fertility reduction; and that it had sufficient resources to absorb the start-up costs of family planning services.

During its five years, the TIPPS project conducted business analyses in Latin America (Brazil, Honduras, Mexico, Peru), Africa (Nigeria, Zaire, Zimbabwe), and Asia (India, Indonesia), covering private employers, insurance carriers, and health maintenance organizations. The Enterprise project conducted fewer and less detailed cost-benefit analyses and focused more on providing operational subsidies and technical assistance directly to employers and family planning service providers. Employment-based subprojects were carried out in Latin America (Ecuador, Mexico), Africa (Liberia, Nigeria, Uganda, Zimbabwe), and Asia (Indonesia, Nepal, Philippines). Subprojects which did not involve direct subsidies to employers are discussed below. Subprojects which included direct subsidies are discussed in a later section.

A cost-benefit analysis performed for the Commercial and Industrial Medical Aid Society of Zimbabwe (CIMAS) found that CIMAS beneficiaries had half the national fertility rate and much higher contraceptive prevalence than the country at large (TIPPS 1988). Consequently, although the cost per beneficiary sreved would be modest, family planning program costs would exceed expected benefits. Nevertheless, the company decided to add family planning coverage without raising premiums, as a way of generating goodwill among its clientele and within the government. The company now reimburses family planning services provided by the Zimbabwe National Family Planning Council (at higher prices than charged to the general public), thus providing a significant new revenue source for that organization.

Several other private companies have initiated more modest family planning efforts. In Mexico, the Gigante department store chain hired and trained a physician for the clinic at its main store and distributes donated commodities. In Honduras, several manufacturing firms have hired physicians to provide family planning services and purchase commodities from the IPPF affiliate at lower than commercial market prices. TIPPS estimates that over the five years of the project, 12 private companies in six countries invested a total of US$213,000 in family planning for their beneficiaries. Data on acceptance and source substitution (i.e., how many program users previously used subsidized or commercial sources) are not available.

Not every company approached adopted family planning. For example, a large textile company in Zaire, UTEX Africa, paid so few nonsalary benefits that although there was a clear demand for family planning among employees and dependents, there was no financial advantage to the company of preventing unwanted births. In Peru, a cost-benefit analysis performed for the parastatal electric company, ElectroLima, found that company-subsidized family planning could achieve a positive cash flow in the second year and recover its initial investment in the third year. However, as a state-run monopoly, the company could cover any short-fall by raising rates charged to consumers and thus had few incentives to control costs.

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BOX: A TIPPS Project in Peru

The TIPPS project conducted a study of the potential costs and benefits of providing family planning to employees and spouses at Milpo Mining Company, located in the interior of Peru. The study found 35 percent contraceptive prevalence among married women and a general marital fertility rate of 221 births per 1000 married women. The company paid only US$50 per birth in maternity care, but deferred benefits for medical care, housing, and schooling averaged over US$4,000 per child. It was estimated that providing family planning could raise contraceptive prevalence to 72 percent and improve method mix. Achieving this target would produce a 74 percent fertility decline by the fifth year of the program, for annual savings of $11,000 in immediate costs averted plus future costs averted. Program costs would total about $14,000 in the first year and about $8,000 thereafter. The program would generate a positive cash flow in the third year and recover its initial investment in the sixth year.

A unique feature of the Milpo study was the addition of a child survival module. It was found that the company could achieve significant savings in expenditures for pharmaceuticals by instituting well-baby care and appropriate treatment of diarrhea and respiratory infection among children under age five.

As a result of the study, Milpo initiated integrated family planning/MCH services in 1988. All costs have been paid by the company. Milpo hired an additional physician and nurse educator and contracted with two local NGOs for training and supervision. TIPPS brokered the original training and supervision contracts and provided occasional technical assistance in program coordination. In the first 20 months, vaccination coverage among children under age five rose from 5 percent to 75 percent, and almost all children under age one were enrolled in growth monitoring. Standardized diagnostic and treatment protocols for acute diarrheal and respiratory infection were implemented. The annual wholesale value of savings in pharmaceuticals was estimated at US$ 5,000 (Foreit et al. 1991a).

In less than two years, contraceptive prevalence rose from 34 to 48 percent, and use of modern methods more than doubled. Thirty-one percent of the wives of reproductive age accepted IUDs in 1989, accounting for 11 percent of all IUD acceptance in the Lima/east health region (Foreit et al. 1991b). Fertility rates did not decline in the first years, but pregnancy rates appeared to be declining. (Initiating family planning should have no impact on fertility during the first year of operations, since the services would not interrupt pregnancies conceived before the program began).

The Milpo model was promoted among other mining companies in the area. Top management and medical staff from Milpo met with their counterparts from five mines to describe their experiences with the new services. Two mines added the family planning/MCH services with existing medical staff and contracted for training and supervision. Two other mines expressed interest in adding the services as soon as their economic conditions improve.

4.2. Nongovernmental organizations

Nongovernmental organizations (NGOs) form the second component of the private sector. They have been described as a "residual" category, neither governmental nor for-profit. For the purpose of the present discussion, we will exclude international NGOs, whose primary functions are to lobby for wider support for population and family planning and to channel funding and technical assistance to national and local groups.

Even restricting the category to national and local family planning service providers, NGOs defy easy classification. They vary in organizational structure, location and scope of coverage, funding sources, and services they provide. For example, Brown and Korten (1989) define three organizational styles: market-oriented public services contractors, values-driven voluntary organizations, and member-accountable people's organizations. Voluntary organizations "depend on energy and resources given freely by their members and supporters, because they believe in organizational missions, not because of political imperatives or economic incentives." Public service contractors, on the other hand, are nonprofit businesses which sell "services to governments or private donors, much as firms in the U.S. that accept contracts from government to provide a range of municipal services from garbage collection to health delivery."

NGOs differ in geographic coverage. Some maintain only a single installation, whereas others operate a network of delivery sites and outreach workers. Institutional affiliations vary by organization and across countries. Some NGOs belong to international associations such as the International Planned Parenthood Federation (IPPF), CARE, or World Neighbors. Some belong to national organizations, and many maintain no affiliations at all.

While the stereotypical NGO is a small-scale organization working directly in and with low-income communities, the economic reality for the sector is often quite different. International NGOs channel approximately one-third of official population assistance to the developing world (UNFPA 1989). Donor assistance to and through NGOs is roughly inversely proportional to host government involvement in family planning: in 1986-88, NGOs channeled 50 percent of total population assistance to Latin America, 45 percent to Africa, 35 percent to the Middle East, and less than 30 percent to Asia and the Pacific (Nassim 1991). Nevertheless, most NGOs have some degree of local financing, and many smaller groups rely heavily on volunteer labor and donations from the people they serve.

Many NGOs which promote and/or provide family planning also provide other services, and family planning is not always their primary activity. Some were founded to provide family planning and subsequently added other services, and some were founded for other purposes and later incorporated family planning. Family planning may be offered in the context of primary health or total health care, or as an adjunct to community development activities.

Any single typology obscures the multidimensional nature of the sector. As NGOs evolve and diversify, distinctions among the various subgroups blur. Consequently, it is impossible to estimate the total number of NGOs which provide family planning. IPPF includes 140 national affiliates, one per member country, most of which maintain networks of service outlets. Because of their large and stable international funding base, IPPF affiliates tend to be the largest private family planning associations in their respective countries. However, in sheer numbers, they are overwhelmed by non-affiliated groups. For example, USAID/Bangladesh provides funding to some

100 local organizations which operate in more than 350 locations, while Brazil registers more than 150 family planning NGOs, 170 women's NGOs, and 400 environmental groups (Martine 1990).

4.2.1. Comparative advantages of the NGO sector

Nongovernmental organizations were the pioneers of the population movement, leading the way in advocacy and service provision long before most governments and international agencies became involved (Nassim 1991). Their strength is generally seen as deriving from their links to, or presence in local communities. Donors view them as potential intermediaries between governments and beneficiaries. Many NGOs, whether or not they participate directly in officially funded programs, assert the importance of their community perspective in policy formation and program development (Garilao 1987; Korten 1987).

Concern at stagnant levels of development aid is another factor in donor interest in NGOs. NGOs are viewed as increasing or maximizing development resources at several levels. First, they are thought to possess the potential to mobilize local resources from the people they serve, or to stimulate self-help activities. Second, they are thought to utilize development aid more efficiently than governments, by operating with lower administrative overheads, or to provide more cost-effective services, or to use lower-cost technologies (USAID 1986). Third, many NGOs obtain at least a proportion of their funding from individual and corporate donations, thus augmenting official development sources (Nassim 1991).

While the economic reasons for assisting NGOs are attractive, others argue that the most important developmental roles of NGOs are organizational and political rather than financial and economic. "The organizational capacity that comes to life through NGOs and becomes engaged in development action represents its fundamental strategic resource and crucial contribution. While important, financial resources in themselves are not everything. Often they are quite a secondary factor in triggering genuine development" (Cernea 1988). Some observers counsel caution in donor funding of NGOs, in order not to overwhelm their capacity to absorb and utilize resources or to subject them to the administrative and program control that external funding usually entails. "To do so is something akin to killing the goose that laid the golden eggs. It is likely to destroy the ability of the V[oluntary] O[rganization] to generate the special resource—voluntary social energy—that is the object of the planner/donor's attention" (Brown and Korten 1989).

4.2.2. Accountability and sustainability of NGOs

Brown and Korten (1989) consider sustainability and accountability to be critical features of the voluntary sector—sustainability to the degree that activities satisfy their members' values and expectations, and accountability in the sense that they respond to the needs of their beneficiaries. NGOs are seen as fostering a supportive environment for family planning and serving individuals in need of contraception who cannot afford commercial prices. However, demand among the target population is seldom measured, and supply is assured by the donor community which furnishes financial and commodity support. The assumptions regarding the comparative advantage of NGOs—low costs, administrative flexibility, accountability to local audiences, etc.—are virtually untested.

Despite their contextual and organizational differences, in terms of their family planning activities, there is little to distinguish one nonprofit from another. This may reflect as much their dependence on the same group of donors as to commonalities in family planning needs across countries and regions. Almost all NGOs see demand creation as central to their mission. However,

little is known about the informational deficits of their constituency, and even less about the return from IEC activities.

Most NGOs offer more or less the same products (temporary, principally female, contraceptive methods), all recruit from the same target population (women of reproductive age who are unable or unwilling to pay commercial prices for family planning services), most do not charge more than token payments for services and supplies, few apply client fees to program operations, and most are nearly totally underwritten by international donors. Sheltered from the need to be financially self-supporting, even to the extent of purchasing commodities, family planning NGOs have not had to deal with market forces. Indeed, it may even be said that many compete not for market share or profits or even users, but for increasingly scarce donor funds.

The Honduran IPPF affiliate compensated for a 19 percent decline in its CBD coverage, which had been caused by a 192 percent increase in its CSM program, by *increasing* the number of urban CBD distributors by 24 percent (Janowitz et al. 1991). A competitive market player would have reduced the number of urban CBD outlets, especially since the CSM network was demonstrably cheaper to operate. One might speculate that the agency was trying to bolster CBD performance for fear of losing some of its donor subsidy.

Management capabilities are a widely recognized deficit of the sector; NGOs lack access to assistance in developing appropriate management systems and skills, and donors resist funding staff development expenses (Brown and Korten 1989). The results of an institutional analysis recently performed for six Peruvian family planning NGOs (USAID/Peru 1989) reveal organizational weaknesses that are probably typical of much of the sector. The NGOs tended to manage their internal affairs to satisfy donors' requirements rather than institutional needs; the larger the number of individual donors, the more fragmented their management procedures. Most had logistics and financial management systems in place, but compliance was spotty at best and did not measure up to usual auditing standards. None had implemented any cost analysis system, and their revenue generation schemes were rudimentary at best. The high level of dependency on outside donors presented a significant obstacle to achieving sustainability. As a consequence of this dependency, the NGOs surveyed shared the following management problems, which affect both their sustainability and their accountability to their beneficiaries:

- self-centered rather than market-centered values;
- dependence on donor agencies for leadership;
- lack of a market strategy; and
- tendency to disperse already scarce resources to cover new zones, instead of consolidating and strengthening their existing geographic coverage.

NGOs are often singled out for donor support on the grounds that they are cheaper and more efficient to operate than the public sector. To test these hypotheses, fixed costs and cost distributions were calculated for clinics and rotating medical posts. The analyses suggested that operating at full capacity, the NGOs in the sample would in fact be appreciably cheaper than the public sector (the most expensive fixed cost for an IUD insertion was US$4 vs. approximately US$12 under Social Security). However, administrative costs accounted for an average of 35 percent of fixed costs; this is the weighted mean, the range being 16–65 percent.

Finally, facility utilization and maximum potential cost recovery were assessed for central clinics and rotating medical posts operated by five NGOs. Results are presented in Table 4;

TABLE 4
Productivity and cost recovery among five selected Peruvian NGOs
(in percentages)

CATEGORY	AGENCY A (Lima)	B (Lima)	C (Lima)	D	E
CENTRAL CLINIC					
Capacity utilization	76	54	63	66	32
Cost recovery	42	48	9	84	6
MEDICAL POSTS					
Capacity utilization	99	78	57	52	35
Cost recovery	3	7	3	4	6

NGOs are listed in order of installed capacity. The first-listed and largest agency is the Peruvian IPPF affiliate. As can be seen, none of the clinics were operating at full capacity (defined as 85 percent utilization of space and staff), and only two agencies warranted expansion of their rotating medical posts based on current utilization. None of the rotating posts could be expected to recover more than 7 percent of its costs. It is clear that at the time of the study, none of the NGOs was remotely close to self-sufficiency and that raising productivity without simultaneously raising prices and/or lowering costs would have little impact on cost recovery. The near-total operating subsidies were justified on the grounds of equity, although the degree to which services were targeted exclusively to the poor could also be questioned.

NGOs see their role as serving clients who are unable to pay commercial prices for family planning. The ability of clients to pay for goods and services received is a great unknown, due to the lack of information about client income and purchasing patterns. None of the NGOs studied collected these data, but information was available for two proxy variables—education and place of residence.

Client education and residence data were collected for the three programs in Lima. For the IPPF affiliate, client records showed that 87 percent of the clinic clients and 59 percent of the rotating post clients had a secondary education or higher, which would suggest that they could afford to pay at least part of the cost of the services they received. In terms of residence, 85 percent of the clinic clients and 27 percent of the post clients did *not* live in marginal urban areas ("pueblos jovenes"). Combining the two variables, 79 percent of the clinic clients and 19 percent of the post clients both had at least a secondary education and did not live in marginal areas and thus probably did not need the near-total subsidy they received from the program. The other two NGOs also served many clients whose educational levels and/or place of residence suggested that they could afford to pay more than they were being charged, although their incomes were probably lower than the clients served by the IPPF affiliate.

These findings were corroborated by results of a survey conducted in two of the NGOs (INANDEP, no date). Clients were asked where they sent their children to school: 40 percent of the clients of the IPPF affiliate with school-age children used private schools, as did 15 percent of the clients of the other NGO. Although private school tuition in Peru is relatively low, nevertheless, a family that can afford private tuition should still be able to pay for a larger portion of family planning services than was being charged by the NGOs. (A third, self-supporting, NGO was included in the survey; on all indicators its clients showed lower income levels than the clients served by the heavily subsidized IPPF

affiliate.)

The A.I.D.-funded TIPPS and Enterprise projects worked with selected NGOs in all geographic regions to assist them to market family planning services to employers and insurance companies and to broaden their funding bases. However, donor policies, or NGO perceptions of those policies, were frequently in direct conflict with these efforts. Most of the NGOs contacted were oriented totally to providing subsidized services, and their donors were often uninterested in or opposed to encouraging them to developing marketing capabilities. The TIPPS project concluded that donors' reliance on user volume (as measured by couple-years of protection) as the principal, if not exclusive, indicator of NGO performance has made the NGOs fearful of losing acceptors by charging for services and consequently reduced their motivation to recover costs or generate income (JSA Healthcare Corporation 1991).

4.2.3. Evaluating the impact of NGOs

Given the diversity of settings and program objectives, it is difficult to define appropriate impact indicators for the sector, much less collect the appropriate data. Furthermore, care must be taken to distinguish between NGO contributions in the past and their current contributions to increasing contraceptive prevalence and improving method mix.

As was shown earlier in Table 2, within every geographic region, there is wide variability in the proportion of modern method users who obtain their methods from NGOs. In Latin America, NGO coverage ranges from less than 1 percent to 52 percent of modern method users; in Sub-Saharan Africa, from less than 1 percent to 49 percent; and in Asia/North Africa from less than 1 percent to 5 percent. There is no clear relationship between NGO coverage and either total prevalence or method mix. In some high-prevalence countries such as Brazil, it may even be the case that eliminating NGOs would do nothing to contraceptive use. Lewis and Kenney (1988) suggest that "although NGOs are and should be a fixture of family planning provision, they . . . cannot take on the entire supply burden anticipated for the coming decades."

Some argue that the NGO sector should be evaluated on its advocacy efforts to change public policy and to create popular demand for family planning methods rather than on its contraceptive market share. While these are unquestionably valid activities, especially early in a country's demographic transition, there is no consensus on output indicators or proof of causality. In Zimbabwe, the government has taken over the Family Planning Association, which now operates as a parastatal organization. In Brazil, despite more than 25 years of NGO activities, family planning is still a highly polemic topic and the Ministry of Health—which lists family planning as an integral component of its maternal and child health program—does not include contraceptives in its basic medications list. Similarly, it is difficult to summarize the impact of NGO promotional efforts on demand for family planning in general, although there is clear evidence that specific informational campaigns have increased the demand for specific contraceptive methods.

4.3. Innovative approaches combining private administration with public financing and/or use of public facilities

4.3.1. Contraceptive social marketing (CSM)

Contraceptive social marketing (CSM) uses commercial techniques and retail outlets to market low-cost contraceptives to low-income consumers. Donor subsidies are provided for product promotion (to stimulate consumer demand), and donated or subsidized commodities are often provided as well (to stimulate supply). CSM is best suited for urban and periurban areas where commercial infrastructures are most developed, and for products that do not require clinical service, such as orals, condoms, and vaginal foaming tablets.

Programs subsidizing delivery of contraceptives through commercial distribution channels began in the early 1960s. Early projects were designed to complement existing public and private delivery systems and concentrated on expanding distribution networks and improving commodity logistics systems. They did not incorporate market planning and financial analysis and were not designed to become financially independent or to reduce recurrent costs.

In 1981, A.I.D. implemented the first world-wide CSM technical assistance effort, the International Contraceptive Social Marketing Program (ICSMP). By 1984, there were 13 major on-going CSM projects in Asia and Latin America: India, Colombia, Sri Lanka, Bangladesh, Jamaica, Thailand, El Salvador, Nepal, Egypt, Eastern Caribbean, Honduras, Guatemala, and Mexico.

In 1984, A.I.D. implemented its second program, Social Marketing for Change (SOMARC). SOMARC adopted a more systematic marketing approach, shifted from a distribution-driven to a consumer-driven focus, and solicited the active collaboration of the commercial sector, not only to distribute products, but also to contribute financial and in-kind resources. Pricing strategies targeted low-income consumers and established cost-recovery mechanisms (Maher et al. 1990).

CSM projects bring together all elements of the retail chain, including choice of distributors, products, and brands; creating consumer demand; and setting prices. Financial and technical assistance are usually provided in all areas.

Choice of distributor. To the extent feasible, CSM capitalizes on existing distribution infrastructure rather than developing separate distribution systems. Most countries have established commercial capacity, even if more than one distributor must be used or the capability of the system must be increased. The selection of contraceptives to be marketed also influences the selection of distributors.

In countries where the commercial infrastructure is relatively well-developed, commercial distributors and manufacturers may be willing to participate in CSM. These organizations are already familiar with marketing and management. In countries where it is not feasible for a commercial organization to manage the CSM project, the project may be developed within an existing Family Planning Association or other nonprofit agency. Family planning associations and nonprofit organizations often have national and local networks, and many are interested in CSM as a means of supporting their other programs.

In countries where appropriate commercial infrastructures do not exist and there are no suitable nonprofit organizations, it may be necessary to create a new organization. This means that the project must pay the organization's start-up costs and develop its management and technical systems. An organization whose sole activity is managing CSM may be more focused on ensuring the project's success, but its prospects for long-term self-sufficiency are less promising.

The existence of an adequate distribution system does not guarantee the availability of retail outlets or that their personnel are adequately prepared to promote contraception. Some countries restrict retailers from dispensing ethical products. For example in Ghana, only pharmacies could dispense pills. The CSM project convinced the government to allow oral contraceptives to be sold in chemical sellers shops.

Many CSM projects include training pharmacists and retail staff. Studies indicate that trainees do master the information, but it appears that few of the trained pharmacists and clerks pass on what they have learned to their customers. Training is more effective if it includes communications skills to help retailers interact with consumers (Maher et al. 1990).

Choice of contraceptives. Not all contraceptive products are appropriate for all countries

or market situations, or even social marketing. CSM is most appropriate for contraceptives that do not require clinical intervention, such as orals, condoms, and spermicides. IUDs can be added to the product mix if women are able to purchase them commercially and bring them to clinicians for insertions. CSM projects in Indonesia and Morocco began with condoms because they were less controversial and had fewer ethical restrictions; other methods were gradually introduced later.

The choice of brand directly affects the project's potential for sustainability and self-sufficiency. In countries that already have low-priced commercial contraceptives, CSM can work with the distributor of these products to build its markets, rather than launching competing brands.

Pill projects in the Dominican Republic, Indonesia, Brazil, Ecuador, and Peru worked with locally manufactured products. Manufacturers agreed to lower or maintain already low prices and use their own distribution networks in return for donor assistance in building the market (Maher et al. 1990). Donor funds were used for advertising, public relations, and research activities to expand the market for the CSM product(s). At the end of the project, the manufacturer is expected to continue to sell the product at the low price and to take over promotion with its own funds. This is the preferred model when the prerequisite conditions, an existing commercial market in contraceptives and adequate commercial infrastructures, are present.

When local contraceptive products are not available but the commercial infrastructure is reasonably well-developed, commercial distributors may be able to purchase project commodities. Donors provide funding to build the market through advertising and promotion. This approach is being applied in Indonesia (condoms), Turkey (condoms), and Haiti (orals). For example, condoms are not manufactured in Turkey. The CSM project contracted with a leading pharmaceutical and packaged-goods company, which agreed to purchase condoms with its own funds and distribute them through its pharmaceutical and consumer goods networks. The condom was registered in country by the Turkish Family Health and Planning Foundation, and the distributor agreed to pay a portion of profits from condom sales to the Foundation. Donor funds will be used to finance market research and advertising for four years. By the end of the project, sales volume should increase to a level where it will be profitable for the local distributor to continue to purchase, promote, and sell the CSM contraceptive to the target market with no further donor financial support.

In countries with low prevalence levels and insufficient commercial infrastructures, it may be necessary to use donated product to build a market for low-priced contraceptives. Once the market has been built and adequate reserves are set aside for the future purchase of commodities, the implementing agency should be able to obtain contraceptives through normal commercial channels. Donor-supplied commodities as well as funding for advertising and research are provided in Bolivia (orals), Ecuador (condoms), and Morocco (condoms). After the first three to five years, it is hoped that a sufficient lower-income market will be developed for the implementing agencies to begin to purchase commodities and to pay for promotional support.

In countries where projects will not be able to cover costs of product or where there is no access to foreign exchange, CSM must rely on donated commodities. In Ghana (orals, condoms, vaginal tablets), Liberia (orals, condoms, vaginal tablets), Trinidad (condoms), and Zimbabwe (condoms) economic conditions or restrictions make it unlikely that CSM projects will be able to obtain products commercially.

In Zimbabwe, donated commodities are required because of restrictions on foreign exchange rather than undeveloped markets. Financial returns that otherwise could be used to import commodities are instead reinvested in promotion. The project will remain dependent on product donations, but if a lower-income market for CSM products can be developed, the implementing agencies should be able to take over future operating costs of advertising, promotion, and research. In such countries as Ghana, consumer purchasing power is so low that neither product costs nor marketing costs can be covered from

sales. In these cases, there will be a continuing need to subsidize both commodities and promotion.

Creating informed consumer demand. The objective of any marketing effort is create consumer demand, in this case, for modern contraceptives. This requires market research to track consumer attitudes and behaviors. Because awareness is the easiest component of behavior change to address, there is a tendency to respond to any marketing situation by increasing advertising, and many projects continue advertising long after their brand has high recognition. In Sri Lanka, for example, advertising to raise awareness was continuing although Preethi condoms had about 95 percent awareness and had practically become the vernacular term for condom. Resources should have been redirected to satisfying other informational needs.

Once awareness is established, marketing should shift to creating interest in the new product; providing knowledge about its benefits, how to use it properly, and its source of supply; or encouraging trial. This strategy was adopted in Turkey, where many women already had previous but unfavorable experiences with modern methods. Over half of current pill users used higher dose pills which caused many side effects. Consumers and doctors were not aware of low-dose brands. A mass media campaign will promote low-dose pills, and the project plans to train physicians and pharmacists to inform clients about product use and side effects.

A similar information problem was found in Haiti. Acceptance of oral contraceptives was high, but continuation was low. Women had limited knowledge of the pill and how it worked; at the slightest problem or side effect they would drop or switch brands, creating even worse side effects. A 15-minute educational "soap opera" was produced, to discredit rumors and explain how to use pills correctly.

Setting prices. CSM products must be priced low enough to be accessible to low-income consumers without being so low that consumers question product quality or that adequate profit levels are no longer possible. The ability of the consumer to pay is the first consideration. A common product purchased by low income consumers—a beer, a bus ticket, a bar of soap or cigarettes—may be used to establish a price by analogy. Income levels may also be used to set prices; a month's worth of contraceptives should not exceed two percent of the minimum monthly wage.

The next consideration is cost-recovery. Prices should aim to cover product costs and marketing expenses, to ensure that the project will have adequate resources to continue to obtain and market contraceptives once markets are established. Cost-recovery pricing usually does not include the costs of initial advertising and market research, which are not intended to be recouped from sales.

Pricing decisions are refined through break-even analyses to determine sales volume levels where costs will equal revenues at various prices. If low-income consumers can not afford full cost-recovery prices, projects may need to subsidize prices. At the least, distribution costs should be included in the price margins and fully covered by sales revenues.

Evaluation of CSM impact. During 1988-89, SOMARC funded CSM projects in 29 countries. Table 5 lists the countries and products which participated. Condoms were sold in 25 countries; with the exception of India and Indonesia, all condom brands were donated. Oral contraceptives were sold in 19 countries; 11 countries relied solely on donated commodities, six countries solely on locally available commodities, and two countries sold both donated and locally available brands. Spermicides were sold in 11 countries; with the exception of Colombia and Peru, all spermicides were donated. IUDs and injectables were sold in five and two countries, respectively.

Evaluation of the output and impact of CSM has relied heavily on sales data, as the commercial sector is driven by volume and profit margins. Consumer intercept studies are used to assess the degree to which CSM either attracts users of other brands or users new to the contraceptive method.

TABLE 5
Location of SOMARC contraceptive social marketing projects and contraceptive products sold

COUNTRY	CONDOM	PILL	SPERMIC	IUD	INJ
Latin America/Caribbean					
Bolivia			D		
Brazil			L		
Colombia	D	D,L	D	D	L
Costa Rica	D				
Dominican Rep.		D	L		D
Eastern Caribbean	D			D	
Ecuador			L		
El Salvador		D	D,L		
Guatemala		D	D	D	
Haiti		D			
Honduras		D	D		
Jamaica		D	D		
Mexico		D			
Peru			L	L	
Trinidad		D			
Sub-Saharan Africa					
Ghana		D	D	D	
Kenya		D			
Liberia (project suspended)	D	D	D		
Nigeria		D	D	D	
Zaire		D			D
Zimbabwe		D	D		D
Asia/North Africa					
Bangladesh		D	D	D	
Egypt		D	D		D,L
India		L			
Indonesia		L	L	D	L
Morocco		D			
Nepal		D	D	D	
Pakistan		D			
Sri Lanka		D	L	D	

D = Donated product
L = Locally manufactured or purchased product

Sales data for CSM products are routinely collected in all SOMARC projects; market data for oral contraceptives are available in countries which subscribe to the International Market Survey (IMS). Data on total sales of condoms are not available.

There is no question that CSM projects have succeeded in selling large volumes of contraceptive commodities. Table 6 presents sales volumes for oral contraceptives and condoms by country by year. However, since many of these projects had begun earlier, it is difficult to assess the evolution of the CSM market.

TABLE 6
CSM commodity sales (in thousands) by country, 1988 and 1989

	CONDOM SALES				ORAL CONTRACEPTIVE SALES			
	DONATED		LOCAL		DONATED		LOCAL	
	1988	1989	1988	1989	1988	1989	1988	1989
Latin America								
Bolivia					14	48		
Brazil							404	487
Colombia	5474	6588			696	587	4815	4856
Costa Rica	1905	2186						
Dominican Rep.	26	290					250	434
Ecuador							536	551
El Salvador	1739	1864			155	180	14	43
Guatemala	651	939			67	122		
Haiti		252						
Honduras	420	491			203	218		
Jamaica	1699	2105			510	500		
Mexico	2183	1542						
Peru							594	714
Trinidad		142						
TOTAL	14096	16400			1644	1655	6613	708[illegible]
Africa								
Ghana	3501	3214			351	431		
Kenya		250						
Nigeria	607	5944			43	191		
Zaire	943	4135						
Zimbabwe	50	301			5	32		
TOTAL	5101	13844			398	654		
Asia/North Africa								
Bangladesh	116711	115152			4704	6692		
Egypt	17165	15772			2129	1783		
India			13152	41853				
Indonesia			7206	7868			46	338
Morocco		280						
Nepal	2825	2817			118	161		
Pakistan	34030	44314						
Sri Lanka	4833	9501					574	610
TOTAL	175564	187836	20358	49722	6951	8636	620	948

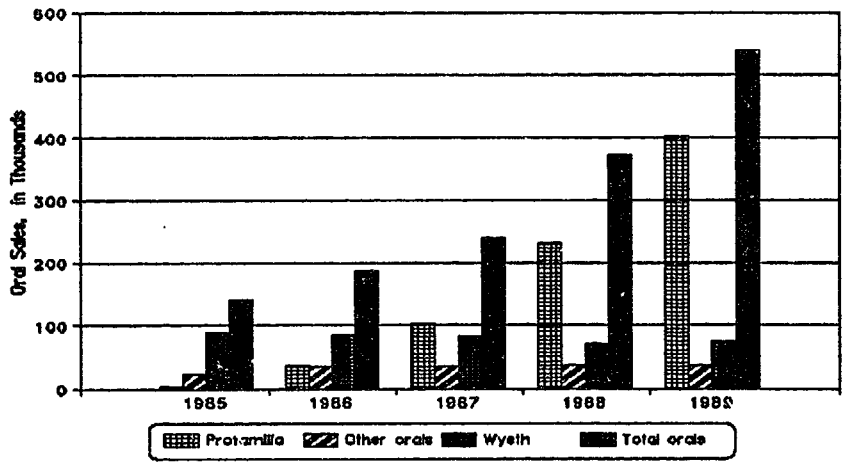
Source: The Futures Group, SCMARC project

IMS data are available from the Dominican Republic and demonstrate the impact of the CSM project on the total commercial market for pills in that country. In 1986-90, the commercial market grew by approximately 390 percent. As can be seen in Figure 3, the increase came from CSM sales; the other commercial brands remained constant. Since pre-1985 data are not available, market expansion in the absence of CSM cannot be projected; however, it is unlikely that it would have accelerated so rapidly.

CSM projects usually do not include explicit prevalence targets, largely because of the inherent difficulties in attributing changes in prevalence to specific interventions, and because the commercial market is more concerned with sales. Nevertheless, from the donor perspective, evaluating project impact on prevalence or market share is essential to justifying continued support to CSM efforts.

Consumer intercept studies are used to assess impact of CSM on source switching and

FIGURE 3
Impact of CSM on commercial pill market in the Dominican Republic



on attracting users new to the contraceptive method. Consumers purchasing CSM products in pharmacies and shops are interviewed on the spot for their socio-demographic characteristics and previous use of contraception. However, it is not immediately clear that new users have adopted the CSM method and brand because the program is promoting low-priced commodities or because buyers are at the stage of life to begin using contraception and purchase the CSM brand over another. New users have been reported to be younger than women who switch from other brands in the Domini Republic, Honduras, and Peru; the alternative hypothesis that they would have begun contracepting without the CSM project cannot be discarded (Brown et al. 1988). In intercept studies in the Dominican Republic and Peru, 34 percent of the CSM brand purchasers in each country reported that they had not used any family planning method before using the CSM brand. However, these figures do not distinguish between first-time purchasers and long-term users: 46 percent of the respondents in Peru had been using the brand for over one year, and 11 percent for five years or more. These studies should disaggregate first-time purchasers for separate analysis.

Finally, the impact of increased prevalence of CSM methods should be assessed against the background of total contraceptive prevalence. It appears that in the Dominican Republic and Panama, women may have begun to postpone sterilization because of greater reliance on oral contraceptives (Brown et al. 1988). In this case, CSM could be seen as promoting greater user choice and quality of care, but its impact on fertility would be diminished.

In Honduras, pill prevalence remained unchanged three years after the introduction of the CSM project (12.7 percent in 1984 vs. 13.4 percent in 1987) (Honduran Ministry of Public Health et al. 1989). The social marketing share of the pill market more than doubled, from 6.5 to 15.4 percent. CSM drew clients from the public sector (20.9 to 17.8 percent), the commercial sector (26.4 to 21.0 percent), and the CBD program (46.0 to 41.3 percent). Thus project success in attracting previously subsidized users (public and CBD clients) was nearly offset by source substitution from the self-supported commercial sector.

The degree to which CSM projects increase total method prevalence and/or effect source substitution from subsidized and commercial outlets probably depends in part on baseline prevalence

and relative prices. It is an issue that warrants further study. Definitive evaluation of the contribution of social marketing to contraceptive use requires that sales analyses and consumer intercept studies be conducted in the context of a wider research effort, including contraceptive prevalence surveys that include better questions on source and financing and consumer responses to changes in relative prices.

Three CSM projects have terminated donor support and are therefore considered to be self-sufficient: Dominican Republic (orals), Barbados, and Indonesia (Dualima condoms). It should be noted that USAID/Indonesia has begun to finance a $4 million, four-year social marketing project to promote another product line which will directly compete with the earlier CSM brand. Stipulations that commercial partners will pick up promotional costs once project funding terminates have been made in Colombia, Ecuador, Bolivia, Brazil, the Dominican Republic, Peru, Indonesia, Morocco, and Turkey. Data on commercial investments are not forthcoming. Companies regard such information as trade secrets and do not reveal expenditures so that their competitors do not find out what they are doing.

Projects which do not achieve full self-sufficiency may be able to demonstrate that the CSM channel is less expensive than other subsidized approaches. For example, in Honduras, the gross direct cost of distributing oral contraceptives via social marketing was 16 percent lower than the implementing agency's CBD program; when net costs were calculated by subtracting revenues earned, the cost differential increased to 34 percent (Janowitz et al. 1991). Colombia Profamilia's CBD program works very much as a CSM approach; the costs of distributing temporary supply methods through the CBD program were two to almost four times cheaper than distributing the same methods through its clinical outlets (Chernichovsky and Anson 1989).

4.3.2. Subsidies to private practitioners, medical groups, and employer-supported health plans

Donor subsidies to commercial health outlets have been tested on a pilot basis in the hopes that these organizations would assume full costs once the market was established. Some projects attempted to increase demand for family planning, and others attempted to establish a wider supply base. Most of these projects have worked with third-party financing and organized medical groups, although one project in Mexico worked with individual private physicians.

In Indonesia, the Atma Jaya Hospital provides family planning to factory workers, mostly young women, in North Jakarta. In 1983-87, all service delivery costs were picked up by a donor, Family Planning International Assistance (FPIA). When funding ran out, the project turned to the Asia Family Planning Operations Research project and TIPPS for financial and technical assistance to market the same services, but with employers paying the service delivery costs. During the next two years, 27 factories signed up for health services, 17 of which contracted for family planning. Over 4,000 clients received family planning in the first 18 months. A slight increase in contraceptive prevalence (69.9 to 73.1 percent) was reported after the first six months, but this may have resulted from sampling error. More significantly, the project succeeded in attracting previous users of public facilities: the percentage of users who were served by government clinics dropped by a third (44 to 29 percent). The services also attracted previous users of commercial outlets; the percentage served by the commercial sector dropped by almost a quarter (37 to 28 percent). Revenue generated for Atma Jaya exceeded costs by the end of the first month (Hindarto et al. 1990).

In the Philippines, the Enterprise Project provided subsidies to an umbrella NGO, the Population Center Foundation (PCF) to market family planning services to nearby factories. Within

two years, 21 companies had been enrolled. However, service costs were still highly subsidized by the donor; less than 15 percent of the operating costs were being recovered from employers. A similar umbrella project in Thailand with the Population and Community Development Association has run into sustainability problems. The program was almost totally donor funded, and as employers were not liable for health and maternity (these costs were covered by the national social security system), the participating firms had very little incentive to avert unwanted births.

Health insurance companies in Peru do not offer preventive care. The TIPPS project provided seed money to Medicsa, a private medical group in Lima that serves private health insurance clients. Medicsa promoted the financial benefits of family planning with employers, insurance companies, and administrators of self-insurance funds. As an incentive, the price of outpatient consultations for family planning was set at 50 percent of the normal tariff and the project offered a family planning educator to promote the new services within client companies. The project convinced two insurance companies and two bank self-insurance funds to include family planning. Benefits were continued even after price subsidies were withdrawn. Acceptance by individual users was slow, due in part to the higher deductibles and co-payments demanded by the insurance companies in response to Peru's worsening economic conditions. While the project did succeed in incorporating family planning into some health insurance plans, it might have been more effective to work directly with the insurance companies themselves. Since the clinic benefitted from selling additional services, their credibility in promoting cost-benefit arguments may have been suspect.

In Brazil, the Pathfinder Fund and TIPPS collaborated on a project to introduce family planning into HMOs. Prepaid plans are the major source of employer-financed health care in Brazil. These organizations routinely cover preventive care, including prenatal and well-baby visits, although few offer family planning in an organized fashion. A cost-benefit analysis performed at one of the larger HMOs found that due to high levels of existing contraceptive prevalence and resultant low fertility rates, incorporating family planning would avert relatively few births and achieve only a very modest benefits to costs ratio (AMICO 1987). However, family planning could reduce the rate of cesarean section deliveries and induced abortions; the operational advantage to the organization would be to shift patient load from hospital to outpatient clinics. Since outpatient clinics are easier to manage, this argument proved attractive; currently, 17 HMOs have incorporated family planning with commodity support from the Pathfinder Fund. Long-term prospects hinge on the development of cost-containment strategies for offering family planning.

In their literature review, Rinehart et al. (1987) found that relatively few of the companies that had received donor subsidies to offer family planning had "graduated" to supporting the programs with their own funds, and that many of those that had, continued to receive commodity support from government or NGOs. Skibiak's (1991) end of project review of the Enterprise project was more positive. It lists 17 subprojects which had begun to sustain family planning after subsidies ended, and only two that had not. Employers' contributions ranged from 12 to 164 percent of the donor subsidies. Median employer contribution among the sustainable group was 49 percent of the donor subsidy.

4.3.3. Public-private sector partnerships

The most usual form of public-private partnership is one in which a private group, usually an NGO, arranges to use a public facility—and sometimes public personnel as well—to provide family planning services. Many of these arrangements are informal, and there are few references in the literature. For example, in Piaui State, Brazil, part of the private sector CBD

program was run out of the state secretariat of health, using publicly paid "volunteers" to distribute contraceptives out of health posts and municipal centers (other CBD posts include promoters' homes and market stands) (J. Foreit et al. 1983).

In Peru, an operations research project arranged for a local NGO, Vecinos Peru, to operate after-hours family planning clinics in three ministry of health hospitals in the interior highlands. The ministry provided facilities, and the NGO provided commodities and equipment, trained service delivery personnel, and paid salaries. In the first year of operations, new family planning acceptors increased by 200-700 percent over baseline levels. The after-hours clinics were especially popular with men, who were unwilling to attend in the mornings, when family planning shared waiting and examination rooms with gynecology and obstetrics. Acceptance of all methods increased in the experimental sessions, and temporary supply methods—especially condoms, due to the higher numbers of male clients—showed the largest increases. Operating costs were extremely modest, approximately US$7,000/year per clinic (Solari et al. 1989).

In Honduras, the IPPF affiliate, ASHONPLAFA, initiated a voluntary sterilization program in 1977, supplementing its own two clinics with 16 other hospital locations belonging primarily to the Ministry of Health (private hospitals are also used). National prevalence of female sterilization was 12.6 percent in 1987; half of these women had received the procedure from ASHONPLAFA in a ministry hospital (another 5.5 percent were operated on in the ASHONPLAFA clinic and 15.6 percent in a private hospital staffed by ASHONPLAFA) (Honduran Ministry of Public Health et al. 1989). The NGO also utilizes some ministry personnel in its CBD program; approximately 3 percent of the users of oral contraceptives obtained their supplies through the CBD program operating out of ministry facilities.

4.3.4. Privatization

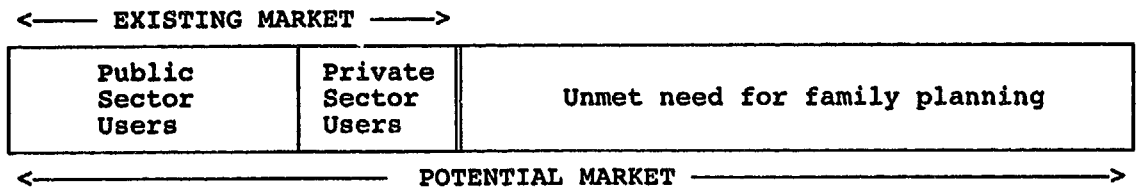
Privatization of family planning services has been explored in only a few countries. Lewis and Kenney (1988) were able to find only three examples: contracts with private physicians in Korea (for sterilizations) and Taiwan (for sterilizations and IUD insertion), and an arrangement in Nigeria whereby a private pharmaceutical firm handles the distribution of contraceptives to government facilities.

In other countries, the public sector routinely contracts out for health care. For example, the Brazilian social security system (INAMPS) contracts with private providers for 43 percent of its outpatient care and 82 percent of its inpatient care (Lewis 1991). Family planning services could easily be integrated into these arrangements. Similarly, the social security administration in Uruguay contracts with HMOs for health care services. Outside Latin America, a limiting factor to privatization of health services, and hence family planning, is the size of the private sector.

5. Impact of enhanced private sector participation

The challenge to family planning programs is to serve ever-increasing numbers of contraceptive users. In those few countries that already have achieved high prevalence, this means keeping pace with population growth and perhaps improving the contraceptive method mix. In most developing countries, however, it will require not only keeping up with population growth but also increasing contraceptive prevalence.

The potential family planning market includes current users of public and private sources as well as unmet need, those women and men who either want no more children or wish to delay the next birth but are not practicing appropriate contraception. The impact of increasing private sector participation on satisfying unmet need for family planning, and thus on raising total prevalence, may sometimes be indirect and difficult to measure.

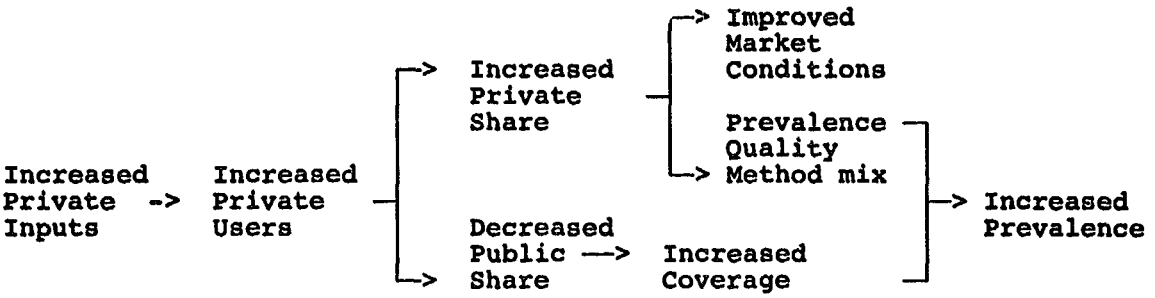


The basic hypothesis is that stimulating the private sector will increase the number of private sector users. This may be accomplished by attracting users from the public sector, and/or recruiting nonusers of family planning. The first alternative is market restructuring; the second is direct market growth. As the number of users served by the private sector increases, so does its market share (unless, of course, the public sector grows even more rapidly).

If the private sector succeeds in attracting previous public sector users, it is expected that the public sector in turn will use its newly freed-up resources to recruit new family planning acceptors (previous nonusers). Thus the number of users served by the public sector will not markedly decrease, although some decline may occur if the new acceptors are more expensive to recruit and serve than the users who passed to the private sector.

Removing or reducing subsidies to those who do not need them should benefit the commercial sector, which does not depend on direct government or donor subsidies. This in turn should improve the sustainability of the national family planning program. An expanded commercial market benefits local manufacturers of contraceptive commodities, private service providers, and NGOs (to the extent that they take advantage of new opportunities to market their services and generate income). The impact of an increased private market on quality of care and effectiveness of the contraceptive method mix remains to be seen.

The desirability of increasing private sector participation does not negate the need for government involvement in family planning. Attracting users from the public into the private sector allows the public sector to expand its coverage, by increasing outreach to previously unserved and/or underserved populations. The public sector should not decrease its family planning funding as a result of source substitution. To the extent that previous public sector users who passed to the private sector are replaced by nonusers of family planning, contraceptive prevalence will increase.



Choosing appropriate interventions depends on which part of the private sector is to be addressed. Inputs to the nonprofit sector usually take the form of direct subsidies or technical assistance. However, the commercial sector requires a different approach, as most donors do not wish to invest directly in firms that are already making a profit, and without this kind of fiscal leverage, it is difficult to "order" the sector to expand its coverage. Therefore, commercial sector initiatives are usually more indirect and may take the form of incentives or promotion. This may include legal and regulatory reform to remove obstacles to commercial sector participation, positive incentives such as tax breaks, or using cost-benefit analysis to encourage private health care financiers such as employers and insurance companies to invest in family planning.

5.1. Impact of increased commercial sector participation

As described earlier, the commercial sector is already involved to varying degrees in all aspects of family planning from manufacturing contraceptive commodities to their promotion and distribution. In larger and more industrialized countries, local manufacturing and/or packaging of contraceptives may prove cheaper to donors in the long run than continuing to export commodities from developed countries. The private sector will and should probably play a lead role in the development of in-country manufacturing capacity. It has been argued that an equity involvement by a private sector technology supplier can help ensure maintenance of international quality standards, and that the profit orientation of the private sector will motivate expansion of sales (and hence increase method prevalence) to utilize production capacity (PATH 1991).

Many countries will find it advantageous to increase commercial sector participation in promotion and distribution of contraception. Commercial outlets can do more than broaden the funding base for family planning. Because of their strong incentives to minimize costs, they may also be able to serve clients more efficiently than the public sector. Increasing commercial sector participation may increase the number of family planning outlets and diversify the method mix. To the extent that clients who pay for goods and services are more demanding and stimulate competition among providers, commercial participation in family planning may improve quality of care. Commercial providers may also assist in creating a wider demand for specific contraceptive methods using proven marketing techniques.

Traditional views on the inability or unwillingness of lower-income groups to pay at least part of the costs of the social services they consume have been challenged in health (Akin et al. 1987). As Lewis and Kenney (1989) point out,

> The traditional assumption that commercial delivery of contraceptives serves the urban, upper classes and sets charges that are only affordable to that segment of the market has never been examined. There is very little information on the source of contraceptive

> services, or what users pay in developing countries, because most survey work has focused on utilization patterns and trends. How consumers get their services, who pays for it, and the availability and effectiveness of alternative sources of services are issues that have not been addressed in any depth (p.43).

At the very least, governments should consider increasing the commercial share of supply methods. For example, in Thailand, the government currently controls 70 percent of the pill market. It that share were reduced to 28 percent (the mean for Latin America), 8 percent of the current users of modern methods would have moved from public outlets to pharmacies, more than doubling the current market share of the latter (from 7 to 15 percent). Janowitz et al. (1990) estimate that if, by the year 2000, the source mix in Asia were to follow the commercial pattern found in Latin America in 1985, public and PVO program costs in that region would actually decrease, despite higher prevalence and increased use of modern methods. Similarly, increased commercial participation in Sub-Saharan Africa could reduce anticipated public and PVO costs by 10 percent.

On the down side, the commercial sector cannot satisfy a country's entire need for family planning because many low income households will continue to be effectively priced out of the market. It is unlikely that commercial family planning outlets will have any incentive to reach households entirely outside of the cash economy.

Health demand studies have clearly demonstrated that many individuals obtain their goods and services through the commercial sector. The commercial sector has the potential to produce contraceptive commodities and to deliver family planning to people who already obtain health goods and services from commercial outlets, keeping in mind that a single individual may use a variety of different health outlets, both public and private, depending on the nature of the health problem and the required intervention, prices and opportunity costs, perceived quality, competing sources, and other factors.

5.2. Impact of increasing NGO participation

NGOs can provide a useful adjunct to the public sector in providing family planning for low-income consumers and can often undertake promotional activities that governments may avoid for political or institutional reasons. However, care must be taken not to use donor subsidies to compete with the commercial sector. For example, in Latin America, where both the commercial and PVO sectors are well developed, NGOs compete with pharmacies for pill users (correlation between pharmacy and NGO market share, $r = -.516$) and with private physicians for female sterilization ($r = -.525$). In contrast, no interaction can be seen between NGOs and private practitioners for IUD users ($r = -.037$).

NGOs could benefit from hands-on technical assistance to position themselves better with respect to their markets. This would allow them to adopt a marketing strategy consistent with their level of development and the needs of the national family planning program. Three basic options are available: *price leader* (offering products at a price lower than the competition); *market segmentation* (finding a niche not being served by its competition; this niche may be defined geographically, by income, or by other consumer characteristics); or *differentiation* (charging a higher price for a higher quality product or for a well-known label).

In areas of low contraceptive prevalence, the price leader strategy may be appropriate,

to the extent that costs are underwritten by donor support and only nominal fees are charged. However, this strategy will not allow NGOs to become financially secure unless they know what their costs are. Given NGOs' orientation to serve lower income groups, the differentiation strategy is usually not viable, unless the competition is only no-cost public services.

In areas of higher contraceptive prevalence, NGOs should concentrate on market segmentation strategies, targeting their efforts at specific income groups in specific geographic areas. Donor subsidies and commodities permit NGOs to offer family planning at below market prices and to reach many areas relatively unserved by either public or private outlets. It is critical that each agency concentrate its efforts in well-defined zones; trying to cover large geographic areas often only increases the agency's complexity without achieving economies of scale.

5.3. Impact of increasing social marketing

Experience to date has demonstrated that donor-subsidized promotion can increase commercial sales of contraceptive commodities. Long-term prospects for CSM depend on the ability of newly established or enlarged markets to support commercial sales once donor subsidies have been removed, or on the willingness of governments and donors to continue to subsidize social marketing. Self-supported CSM efforts can contribute to higher contraceptive prevalence both directly, by increasing the total market for the methods being promoted; and indirectly, by attracting users of subsidized sources who can afford to pay for their methods, thereby freeing up these resources to serve a needier and currently unreached population. Subsidized CSM can contribute to higher contraceptive prevalence if its costs are lower than other subsidized channels for the same methods.

The extent to which a CSM effort can ultimately become self-sufficient depends on such interrelated factors as participation of commercial distribution and retail networks, using commercially acquired (not donated) commodities, and prices which permit at least a small margin of profit. CSM must be rooted in the commercial sector if it is to continue without donor or government support. This obviously requires that there be a functioning commercial sector. Latin America provides the best opportunity for commercial sector transfer. CSM prospects in Africa are complicated by the lack of a dynamic commercial retail sector and a dearth of management and marketing skills. Many countries are wary of private enterprise, such as Zimbabwe, where the government is suspicious of measures that benefit the private sector. The problem in Asia is one of government domination of family planning.

Heavy involvement by public sector and NGOs have often coincided with major implementation problems for CSM (see Brown et al. 1988). Population programs in Asia have long been the domain of the government. Like any commercial enterprise, CSM programs are negatively affected when governments provide free goods to users who can afford to pay. For example, activities in Indonesia were hampered until physicians and midwives were permitted to sell contraceptives, thereby eliminating the free supply and increasing the number of CSM distribution points.

Pricing is another critical issue. Retail prices are paid by consumers; if they are too high, consumers may not be willing or able to pay them, and if they are too low, producers and distributors cannot make a profit. Only a few CSM projects have been able to become self-sufficient for commodities; asking the commercial sector to foot the bill for promotion as well is even more difficult. Cross-subsidization of lower-price by higher-price products has been suggested as a possible solution. However, if there is a high price elasticity of demand, even middle- and upper-

class consumers may prefer the lower-priced CSM brand. The incentive to retailers is to sell the higher-priced items. As a result, companies may be tempted to raise prices rather than developing product line extensions for more affluent customers, once donor subsidies have been withdrawn. If the project has successfully established a viable low-income market and positioned products for that market, commercial firms should more than make up in volume what they lose in profit margins. It remains to be seen if they will in fact do so.

5.4. Impact of increasing managed medical care participation

Recent experience has shown that even in times of economic crisis, there are private employers and health underwriters who can achieve significant cost savings with family planning. Urban employers must be convinced that their workers need family planning assistance.

For the short and medium term, increased participation of insurance companies and managed medical care in family planning is more likely to affect market segmentation than to lead to market expansion. Outside of Latin America, the vast majority of the population is either outside the formal labor force or not covered by employer-sponsored medical benefits, and those who are covered are also more likely to already be using contraception.

This is not to suggest that donors not work with this sector, but quite the contrary. Providing technical assistance to employer plans is a relatively low-cost activity, and if direct subsidies are not provided, whatever family planning activities that are begun, are likely to continue without donor support. Implementing family planning in this context is time-consuming and requires continuous one-on-one contact and follow-up with both top and middle management. It may take one or two years between presentation of cost-benefit analyses and initiation of services. Furthermore, it should be kept in mind that employers and health underwriters are not in the family planning business. No matter what the company's concern with employee welfare, family planning will always be a low priority.

The impact of providing subsidies to companies unwilling or unable to make the initial family planning investment is still not clear. The limit or upper bound to this activity is the size of the formal labor force; the viability of the approach depends on reducing costs and/or attracting hard-to-reach audiences, such as young men.

5.5. Impact of public-private partnerships and privatization

The impact of public-private partnerships on contraceptive use is difficult to assess, principally for lack of data. Prevalence surveys routinely ask users for their family planning outlets but seldom ask about source of financing. Consequently, clients tend to be classified by the *location* of their provider rather than by who actually paid the bill. This may lead to overestimating either the impact of the private sector, in the case of public subsidies paid to private practitioners operating out of private facilities, or overestimating the impact of the public sector, in the case of private practitioners operating out of public facilities.

NGOs operating special family planning sessions in government facilities have significantly increased program coverage in Honduras and Peru (Honduran Ministry of Public Health 1989; Solari et al. 1989). In an operations research project in Indonesia, government fieldworkers referred clients to private midwives for clinical methods. Although 29 percent of the fieldworkers reported referring clients to private providers, only 3 percent of the providers' clients reported having

been referred by a fieldworker (see Lande 1991). On the other hand, in Taiwan, where the government has a long-standing policy of reimbursing private practitioners for family planning services, most IUD users receive their method from the private sector (Lewis and Kenney 1988). The success of public-private partnerships ultimately depends on a number of factors, such as the availability of private providers, amount of subsidies offered, and red tape and delays encountered in applying for reimbursement.

6. Appropriate policies to support private sector services

The active participation of the private sector benefits family planning because it can (a) expand the total family planning market to help satisfy existing and future unmet need for contraception; and (b) shift current users from subsidized to more nearly self-supporting outlets without compromising coverage, equity, and quality of care. Therefore, it is to the government's advantage to encourage greater private sector involvement in the national family planning program, although the mechanisms (NGOs, retail outlets, private providers) and mix will vary from country to country.

Government has a legitimate role in regulating private sector family planning activities, such as licensing facilities, maintaining professional standards among practitioners and quality of contraceptive commodities. Disseminating information about the benefits of fertility regulation and contraceptive options is the responsibility of the government, as is support to users who are excluded from private markets because of geographic isolation or inability to pay. However, governments should not be in the position of subsidizing either users or producers/distributors of contraception who would maintain their family planning behavior even without government support. As Akin et al. (1987) point out, many government health subsidies actually favor the geographically and economically privileged, although this is probably less true of family planning. Overly strong government family planning support may act as a deterrent to private sector coverage (Cross et al. 1991).

The kinds of private sector activities that donors should support depend in part on which contraceptive methods are to be emphasized. For example, nonclinical systems are the most efficient way to distribute supply methods, as long as medical backup is available for women who suffer side-effects or who wish to switch to another method. For the vast majority of pill and other supply method users, it makes no sense to tie up expensive clinical facilities and scarce medical personnel for resupply. Nonclinical distribution favors commercial systems in urban and periurban settings and CBD systems (either public or private) where commercial networks break down. Price subsidies might be considered in areas served by commercial systems, but where consumers cannot afford prevailing commercial prices.

Provision of sterilization, especially tubal ligation, is closely linked with existing hospital infrastructure, which in many countries favors the public sector. Underwriting the construction of private free-standing clinical facilities for sterilization may be a risky undertaking, especially in settings without a demonstrated demand for sterilization services or with limited ability to pay. In poorer countries that lack hospital networks, sterilization may not be a viable large scale option in the short run and be confined to secondary and tertiary hospitals in larger urban areas. Roving sterilization camps have proved effective in Nepal and Thailand where demand for the procedure was high; however, they may have backfired in other areas such as India. Mobile clinic vans have been tried in such countries as Colombia and Guatemala, but their effectiveness and cost-efficiency has

not been carefully analyzed.

IUDs are sensitive to existing infrastructure but can be removed from clinical settings. If minimum hygiene standards are observed, IUDs can be safely inserted in almost any facility that contains some kind of examining table and adequate illumination. This favors NGOs that use nonphysicians and nonclinical outlets. IUDs can also be easily integrated into existing medical outpatient facilities, such as solo physician practices, group practices and HMOs, and company clinics, if adequate financing is available.

Strategic donor planning for program expansion must consider specific methods, specific consumer groups, and all potential outlets, not only broken down by public and private sectors, but also by different components within the private sector and various possibilities for public-private sector interaction. Governments can enhance private sector participation by removing obstacles and providing direct support and incentives to private markets. This requires that the private sector and its components (NGOs, retail outlets, modern and traditional practitioners) be explicitly included in all health and family planning sector analyses and that serious consideration be given to the potential impact of increased government family planning programs on existing private sector activities.

Government and donor support to the private sector can take two forms, that of work in the policy arena to foster a favorable environment for private sector participation in family planning, and providing or facilitating financing and other support for private sector activities.

6.1. Policy initiatives to promote private sector participation

Two policy areas which have important implications for private sector family planning activities are strategic planning and legal and regulatory reform.

6.1.1. Strategic planning

1. Increase government awareness of the potential of the private sector to serve more family planning users and improve the quality of information available for decision making

The private sector, and especially the commercial sector, is the major source of contraceptive goods and services in most of Latin America, an important factor in Asia and North Africa, and an emerging force in Sub-Saharan Africa. Nevertheless, most governments continue to omit private providers from national family planning strategies and programs. If donors wish to achieve policy reforms to stimulate private investment in family planning, they must assist governments to evaluate the extent of current private sector activities, as well as the obstacles and incentives to wider participation. Further analysis of national survey data, such as the Demographic and Health Surveys, is a key; family planning should be included in all future health sector analyses, and vice versa. Better understanding is needed of the factors that influence consumers' selection of outlets for a variety of health behaviors, including, for example, treatment of minor illnesses, well-baby care, prenatal and maternity care, and family planning.

2. Assess the potential impact of expanded public family planning services on private sector producers, distributors, and service providers

This paper has stressed the negative consequences of expanding subsidized goods and services in areas already served by the commercial sector. However, positive effects of increased public involvement may also be possible.

a. *Local manufacture of contraceptive commodities.* By the year 2000, approximately 492 million contraceptive users will be found in areas that historically have relied heavily on donated commodities. In designing contraceptive procurement plans, donors should consider the possibility of local manufacturing; when production is not feasible, local packaging and quality control may be possibilities. Ninety percent of current developing country users reside in only 16 countries, all of which already have large enough consumption to justify local production. Locally produced commodities can be sold to donors, the public sector, and ultimately, retail distribution chains.

Any assistance effort promoting local production of contraceptives should assess both the reliability of the projections of demand for contraceptive commodities and production capacity, as well as the incentives and constraints to local manufacturing within the given country.

b. *Avoid introducing subsidies into areas already served by the private sector.* Demand for contraception appears to be relatively inelastic to small price increases, but the reverse may not be true. Experience in Brazil found that introducing free commodities into areas with a small retail sector had the undesired effect of driving out the commercial sector without increasing prevalence (Rodrigues et al. 1979; Arruda et al. 1982). Baseline commercial distribution data should be collected before designing or increasing government subsidies; if survey data are not available, local distributors may be able to provide some estimate of commercial sales. Controls should be instituted to prevent leakage of donated commodities into the private market; if donors wish to furnish retail outlets with donated supplies, it should be done on an organized rather than informal basis. Donors should provide technical assistance in logistics and continuously monitor destinations and outcomes of donated commodities.

c. *Reduce unnecessary subsidies.* Public family planning programs and donor subsidized NGOs should consider instituting means testing and user fees to discourage inappropriate utilization of public sector resources. In addition to generating income for public facilities and NGOs (itself a major concern for health care financing efforts), charging for goods and services may convince some less-needy users to switch to private outlets. Subsidy reduction should be attempted only in higher prevalence areas or in more mature programs; programs should conduct small OR projects to test the impact of charging on utilization before setting system-wide fees.

3. Assess existing public sector coverage before introducing new subsidized NGO outlets

If NGOs are to expand geographic coverage of the family planning program, priority should be given to areas currently unserved by the public sector. This will almost necessarily raise the cost of support services such as logistics and supervision and therefore increase per-user costs as well. Many times, NGO outlets duplicate public services, and more isolated communities continue without any services at all. For example, a community-level analysis of the 1987 Ecuador DHS found that half of the rural CBD promoters were located in communities already served by a Ministry of Health subcenter while 71 percent of the rural segments had neither MOH nor CBD services. The presence of either an MOH outlet or a CBD promoter raised contraceptive prevalence, but when the services were combined, the effects were less than additive (CEPAR 1989).

4. Encourage private insurance and prepaid medical plans to include family planning services

Insurance or risk coverage plans have been advocated as a means of extending health care to low-income households; however, the recommendations usually cover only protection against catastrophic events. Preventive care is often deliberately excluded (see Akin et al. 1987).

There are situations where it does make sense for risk-sharing insurance plans to provide family planning coverage; for example, if plans cover maternity care or treatment of abortion complications, providing low-cost family planning services might reduce these higher-cost claims. Prepaid medical plans, such as preferred provider or health maintenance organizations, may also have net gains from family planning. Donors can help determine the costs and benefits associated with family planning for insurance, prepaid medical, and employer-subsidized health care plans; however, care must be taken to avoid subsidizing studies or services that the plans would otherwise finance themselves.

6.1.2. Legal and regulatory reform

Public policies and regulations may constrain the growth of the private family planning sector by shifting the supply and demand curves inward, reducing the level of actual goods and services provided by the private sector from their true potential. Many of these regulations lie outside the scope of family planning or even the health sector and bring into play other government ministries and departments (e.g., ministries of finance or planning commissions) whose objectives may be at odds with those of the family planning program. Furthermore, some regulations which exist on the books may not be honored in practice (such as selling pharmaceuticals only with a physician's prescription), and there are a host of nonregulatory economic factors, such as disposable household income and the availability of free public services, which may have a greater limiting impact on the private sector than government policies.

Kenney (1990) has identified seven regulatory areas that may inhibit the expansion of private family planning efforts:

1. *Import policies,* including tariffs or quotas on imported family planning supplies and other import restrictions such as controls on foreign exchange. These serve to raise retail prices of contraceptives and medical services such as IUD insertions or sterilizations in countries that are heavily dependent on imported commodities and equipment. Import controls are often imposed as part of structural adjustment or as conditions for receiving foreign assistance; donors should considering exempting family planning products or adding contraceptives to the list of exempt basic medications. In larger countries, local manufacture of contraceptives may be a viable alternative to lifting import restrictions, providing that critical machinery can be brought in.

2. *Tax policies,* such as value-added taxes. These also serve to raise retail prices and may have a negative impact on efforts to establish a local capacity to package imported contraceptives and to perform quality controls. While ministries of finance are loathe to forgo any potential source of revenue, if basic medications are exempt from sales or value-added taxes, contraceptives should also be; in addition, donors could demonstrate that the loss in tax revenue from local manufacture or packaging could be offset by other economic gains such as expanded employment.

3. *Pricing policies,* including price ceilings or other price controls. Many governments control the prices that can be charged for basic necessities, including certain foodstuffs and medications. During times of inflation, these restrictions may keep the selling price below the cost of production and force manufacturers out of the market, or make profit margins so small as to discourage retail distribution and sale. Relaxation or elimination of price controls is often included in structural adjustment programs.

4. *Advertising restrictions* may prohibit mass media promotion of brand-name ethical products, product lines, or even nonprescription family planning products. Donors interested in underwriting social marketing efforts may need to address advertising policies. However, given the small profit margins for most contraceptive brands, it is unlikely that many private manufacturers or distributors would invest heavily in mass media advertising even if restrictions were lifted. For similar reasons, few private companies would be willing to invest in generic advertising campaigns.

5. *Certification of outlets and providers* may limit family planning distribution to fully equipped clinics, licensed physicians, or pharmacies. These regulations are often supported by professional associations to restrict their competition. NGOs, nonclinical programs such as community-based distribution, and social marketing programs are often affected by certification requirements; donors may find it easier to approach regulatory bodies directly rather than to try to work through the professional associations. Certification issues may also be encountered when trying to establish free-standing sterilization or abortion facilities, even though the procedures themselves are permitted by law.

6. *Delays in approval of new products* affect both donors and recipients. For example, A.I.D. cannot distribute, except for clinical trials, any pharmaceutical not approved by the U.S. Food and Drug Administration. Similar delays may be encountered within developing countries; for example, Brazil manufactured and exported the TCu 380A copper-bearing IUD for several years before the device was permitted for use in country. It is not clear to what extent donors can encourage governments to streamline the approval process, but they can help assure that once approved, import licenses are routinely renewed.

7. *Restrictions on private medical practice,* ranging from total bans on private practice to restrictions on certain types of practitioners. These may be imposed to insure an adequate supply of practitioners for the public sector or because of a government's ideological commitment to free public health care. At a minimum, donors can encourage governments to permit public practitioners to maintain private practices in their off-hours. Many practitioners already do engage in private activities in spite of official prohibitions, and government recognition would allow public authorities to exercise legitimate licensing and quality controls.

6.2. Financing initiatives to promote private sector participation

6.2.1. Foster demand for private sector family planning goods and services

Demand can be created at different levels: for fertility regulation, for specific contraceptive methods, and for specific contraceptive brands and/or outlets. Creating demand for fertility regulation and improving knowledge of contraceptive options is properly the work of the public sector to correct imperfect information and should be publicly financed. Improving consumer knowledge of specific contraceptive brands and/or outlets may benefit private sector products and providers, but profits—especially on moderately priced contraceptives—are usually too low to

motivate companies to invest heavily in mass advertising. Publicly funded promotion campaigns should usually be contracted out to private sector specialists (see Piotrow et al. 1990).

1. *Social marketing.* Mass media and point of purchase promotion can increase commercial retail sales of temporary supply methods. What happens to sales levels after this promotion has been withdrawn is yet to be seen. Advertising may require regulatory reform as well as donor subsidies; funds for brand-name advertising should not be committed until and unless regulations permit advertising of ethical products (i.e., contraceptives). It does not appear likely that commercial manufacturers and/or distributors will invest their own funds in mass media advertising, although they may promote their contraceptive commodities through other channels such as detailers and salesmen.

2. *Payment or reimbursement for services rendered by the private sector.* Voucher or capitation systems have been proposed to reimburse clients treated by private providers. However, it is a complex option which would require

> a total revamping of the financing and delivery of health care, although it may be an initiative that could be tested or applied on a limited basis for some services such as family planning. In tandem with such a switch, some assistance must be given to the private sector both to gain access to the resources it needs to develop services, and to promote insurance or other coverage . . . for the population not covered by the reimbursement system (Lewis and Kenney 1988, p.121).

6.2.2. Promote private sector supply of family planning goods and services

Increasing the demand for private family planning goods and services will stimulate the private sector to expand its capacity to attend that demand. At the same time, donors can take steps to directly increase private sector supply.

1. Underwrite or guarantee capital investments in private sector infrastructure

a. *Provide access to loan capital for construction of contraceptive manufacturing facilities.* Local production of contraceptives was recommended earlier, yet potential manufacturers may lack sufficient start-up capital for construction or upgrading of facilities. Care must be taken to ensure an adequate market for anticipated production. For example, loans could be tied to government and donor commitments to purchase locally produced products for public and NGO outlets.

b. *Provide grants or access to loan capital for construction of clinical facilities.* Constructing clinical facilities should be a low priority, especially if the aid recipient will have trouble covering recurrent costs. Approval of loans for construction of clinical facilities should follow the usual market analyses required of any commercial undertaking, such as linkages to captive populations (e.g., health insurance plans) or product diversification (adding family planning to an existing facility rather than building a free-standing family planning clinic).

2. Underwrite recurrent costs of providing family planning through the private sector

a. *Price subsidies for contraceptive products.* Some areas may have well-developed commercial retail networks, but prices of commercial contraceptives are beyond the reach of many consumers. Social marketing programs can provide subsidies to keep retail prices low enough to be affordable to consumers while still guaranteeing an acceptable profit margin for distributors and retailers.

b. *Support to NGOs.* While donors usually explicitly refuse to cover recurrent costs (other than commodities) in the public sector, recurrent cost support to NGOs is the rule rather than the exception. This paper does not advocate eliminating NGO support, but it does suggest reexamining the bases for initiating and continuing both commodity and financial support.

NGOs are thought to have a competitive advantage in serving hard to reach populations and in providing non-clinic-based family planning services. Therefore, before initiating support to an NGO, the donor should ascertain that the organization is, in fact, physically located in an unserved area and that it will provide methods previously unavailable to the target population. Creating brand-new single-purpose family planning NGOs should be a very low priority. Continuing funding should be based on demonstrated impact and efficiency, not just total production or cost per CYP, but geographic coverage or contribution to method and total prevalence. Management support should be provided to improve organizational accountability to the user population and operational efficiency. Support to NGOs which do not contribute to prevalence should be phased out. Successful NGOs should be expected to cover greater portions of their operating expenses through local sources, including user fees, cross-subsidization, and/or local donors.

3. Tax breaks for employers and health care financiers who underwrite family planning

Tax breaks for financing family planning are attractive because they do not require any cash outlay. Many countries already exempt charitable contributions or health care expenses. Firms could be encouraged not only to provide family planning for employees and dependents, but also to make cash and/or in-kind contributions to family planning NGOs.

4. Sharing public sector facilities with the private sector

In many countries, public sector facilities stand vacant many hours of the day, especially in the late afternoon, evenings, or weekends. Local directors should be encouraged to permit private organizations, especially NGOs, to operate after-hours family planning clinics and wherever feasible, to charge for services rendered.

6.3. Pilot studies and coordinated evaluation activities

Even the best-planned program will present unforeseen opportunities for program expansion. Donors should reserve funds to be able to respond to these opportunities though designing and implementing self-contained, limited-scope pilot projects. The private sector will often be best-suited for these projects, although decentralized public systems may allow local outlets enough autonomy to undertake such ventures as well.

Process evaluation should be built into every program and pilot project. Impact evaluation is often beyond the means of individual projects because of limitations on funding, staff, or time. Large-scale data collection efforts, such as national prevalence surveys, should include

enough country-specific information to permit impact evaluation of at least national-level projects.

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